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A review of the Scaphidiinae (Coleoptera: Staphylinidae) of the People's Republic of China, I

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A review of the Scaphidiinae (Coleoptera: Staphylinidae) of the People's Republic of China, I. - The present paper is the first part of a review of the Scaphidiinae of People's Republic of China. It treates 78 species in 12 genera. New species are: *Cyparium sichuanum* sp. n., *Ascaphium irregulare* sp. n., *A. alticola* sp. n., *Episcaphium catenatum* sp. n., *E. strenuum* sp. n., *E. haematoides* sp. n., *Scaphidium inexspectatum* sp. n., *S. jizuense* sp.n., *S. kubani* sp. n., *S. becvari* sp. n., *S. kurbatovi* sp. n., *S. lunare* sp. n., *S. schuelkei* sp. n., *S. stigmatinotum* sp. n., *S. sichuanum* sp. n., *Baeocera xichangana* sp. n., *B. huashana* sp. n., *B. cooteri* sp. n., *B. kubani* sp. n., *B. yunnanensis* sp. n., *Scaphobaeocera simplex* sp. n., *S. molesta* sp. n., *S. pseudovalida* sp.n., and *Toxidium villosum* sp. n. *Scaphidium tsushimense* Shirôzu & Morimoto, 1963 is placed in synonymy of *Scaphidium amurense* Solsky, 1871. Lectotypes are designated for *Cyparium yunnanum* (Achard); *Ascaphium minus* Pic, *A. sinense* Pic, *Scaphidium delatouchei* Achard, *S. fukiense* Pic, *S. klapperichi* Pic, *S. vernicatum* (Pic), *S. yunnanum* Fairmaire, *Pseudobironium sinicum* Pic. Keys to species are provided.

Key-words: Coleoptera - Staphylinidae - Scaphidiinae - taxonomy - China.

INTRODUCTION

The scaphidiines with almost 1400 species currently recognized is one of the more speciose groups of mycophagous beetles. While large collections from the Indian subcontinent, including Himalaya, Thailand and Japan were studied previously by me and the faunas of these areas appear reasonably well documented, very little is known about the scaphidiines of China. The gaps in the knowledge obscure recognition of eventual centres of endemism and understanding distributional patterns of the taxa recorded from neighbouring countries.

Thus, the collections of scaphidiines of the People's Republic of China which became available since the last decade provide significant new information. Based on this material, a review of the scaphidiines of China is given. The present paper deals with all genera but *Scaphisoma* Leach which will be treated in a separate study. In respect to the size and habitat diversity of China, the scaphidiines appear underrepresented compared to other parts of Asia (e.g. LÖBL 1979, 1990b, 1992). Obviously, the available information is still anecdotal, and strongly depends on the

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accesibility of the sites and methods used by the collectors. In particular, the field work in high altitudes yield significant material from several mountains of Yunnan and Sichuan, while the material from low altitude sites is inadequate, with the possible exception of that from Hong Kong.

Since 1886, when FAIRMAIRE described the first species from China, *Scaphidium yunnanum*, little information was published afterwords. ACHARD (1920a, 1920b, 1920c), PIC (1916, 1920, 1954), LÖBL (1965, 1972, 1984b), and LI (1992) provided isolated descriptions of 18 species, two of which were synonymized. LÖBL (1966, 1968, 1970, 1984b) and LI & CHEN (1993) recorded a few additional species, and Rougemont (1996) published a list of species of Hong Kong, based on identifications made by me. Presently, 31 identified and three additional unidentified species have been reported from the People's Republic of China (referred below to as China).

The classification of the higher taxa follows LESCHEN & LÖBL (1995) and methods follow LÖBL (1992). A key to the genera is given in the latter paper but for distinguish characters of *Episcaphium* and *Ascaphium* see also LESCHEN & LÖBL (1995). For references to previous descriptions and synonymy see the catalogue by LÖBL (1997).

Acronyms of the collections examined:

MHNG	Muséum d'histoire naturelle, Genève
MMUE	The Manchester Museum, Manchester
MNHN	Muséum National d'Histoire Naturelle, Paris
NHMB	Naturhistorisches Museum, Basel
NHRM	Naturhistoriska Riksmuseet, Stockholm
NMPC	Narodní Muzeum, Praha
PCAP	Private collection A. Pütz, Eisenhüttenstadt
PCMS	Private collection M. Schülke, Berlin
SMNS	Staatliches Museum für Naturkunde, Stuttgart

SYSTEMATICS

Cyparium Erichson

This genus comprises 47 valid species occuring in all major biogeographical areas, except New Guinea and Australia. A single species, *Cyparium yunnanum* (Achard), was known previously from China. Five additional species are mentioned in this study, one of which is new.

KEY TO THE SPECIES OF *CYPARIUM* OF CHINA

1 Elytra dark, with yellow humeral spot and yellow apical fascia .... *C. montanum* Achard
- Elytra unicoloured 2
2 Pronotum and elytra microsculptured and iridescent. Large species 4.5-6.0 mm long .... *C. mikado* Achard
- Pronotum and elytra without microsculpture and not iridescent 3

3 Prohypomera with microsculpture, lateral portion of metasternum coarsely punctate 4
- Prohypomera without microsculpture, lateral portions of metasternum smooth 5
4 Mesepisterna with microsculpture . . . . *C. sibiricum* Solsky
- Mesepisterna without microsculpture . . . . *C. yunnanum* (Achard)
5 Elytra with distinct puncture rows. Metacoxal process with evenly concave apical edge . . . . *C. siamense* Löbl
- Elytra without distinct puncture rows. Metacoxal process with tridentate apical edge . . . . *C. sichuanum* sp. n.

Cyparium mikado Achard

Material examined. China, Beijing, Badaling, 13.XII.1993, G. de Rougemont, 1 (MHNG); Shaanxi, Qin Ling Shan, 110°06'E, 34°27'N, Hua Shan, north Valley, 1200-1400 m, 118 km E Xian, 18-20.VIII.1995, M. Schülke, 1; same data but leg. D. W. Wrase, 1; same but leg. A. Pütz, 3 (PCAP, PCMS, MHNG).

Distribution. Japan; China: Beijing and Shaanxi.

Comments. This species is locally common in Japan and very active (personal observation). It may be easily distinguished from its Asian congeners by the pronotum and elytra with microsculpture, in combination with the uniformly dark and large body. The shape of the parameres and the structures of the internal sac of the aedeagus (Figs 1 to 3) are also diagnostic.

Cyparium montanum Achard

Material examined. China, Yunnan, Jizu Shan, 25°50'N 100°21'E, 2500-2700m, 6-10.VII.1994, V. Kubán, 9 (NHMB, MHNG).

Distribution. North India; Bhutan; China: Yunnan.

Comments. This species may be easily distinguished by the elytral colour pattern.

Cyparium siamense Löbl Fig. 7

Material examined. China, South Yunnan, Mengyang Nat. Res. ca 500m, 14.IX.1994, S. A. Kurbatov, litter, 3 (MHNG).

Distribution. China: Yunnan.

Comments. The specimens of China are slightly smaller than those from Thailand. They differ also in having the elytral margin keels entirely exposed, and the aedeagi 0.90-0.92 mm long.

Cyparium sibiricum Solsky Figs 1-3

Material examined. China, Yunnan, Heishui, 35km north Lijiang, 27°13'N, 100°19'E, 18.VI.-4.VII.1993, S. Bečvař, 10 (MHNG); North Yunnan, Lijiang, 2600m, 30.VI.-2.VII.1990, L. & M. Bocák, 1 (NHMB); Sichuan, Ganzi Pref., Daxue Shan, 101°57'E 30°03'N, north Kanding, 2600-270m, 22-24.V.1997, A. Pütz, 1 (PCAP); South Sichuan, 20km S Muli (Bowa), 101°13'E, 27°45'N, 3500m, 29.VI.1998, M. Bocák, 1 (BMNS); Shaanxi, Qin Lin Shan, 100°06'E 34°27'N, Hua Shan, north valley, 1200-1400m, 118km E Xian, 18.-20.VIII.1995, M. Schülke, 1 (MHNG).

Distribution. Russia: Siberia, Transbaikal, Far East Russia; China: Shaanxi, Sichuan, Yunnan.

Comments. The specimens of China possess finer and shorter elytral puncture rows than the specimens from Russia. *Cyparium tenenbaumi* Pic from Siberia is very similar to, and likely just an infrasubspecific form of *C. sibiricum*. More material is needed to examine the validity of *C. tenenbaumi*.

Cyparium yunnanum (Achard)

Type material examined. Lectotype ♂ and paralectotype ♀, labelled Ht. Yunnan, Tali / Type (red) / *Cyparium yunnanum* n. sp. J. Achard det Type (handwritten by J. Achard) / Mus. Nat. Pragae Inv. 18714 (lectotype) and Inv. 18713 (paralectotype) (NMPC) - by present designation.

Additional material. China, Yunnan, 1 ♀ (MHNG).

Distribution. China: Yunnan.

Comments. This species possesses following diagnostic characters: Length 1.8-1.9 mm. Body black, not iridescent. Apex of abdomen, femora, tibiae and antennal club brown. Antennal segments 1 - 6 and tarsi ochraceous. Prohypomera dull, with conspicuous microsculpture. Mesepisterna smooth. Metasternum without microsculpture. Most of middle portion of metasternum smooth, fine punctures near intercoxal process. Lateral portions of metasternum distinctly punctate, puncture diameters smaller than puncture intervals. Abdominal segments with microsculpture consisting of punctures. First exposed sternite punctate as lateral portions of metasternum, and with laterobasal row of elongate pits. Aedeagus very similar to that in *C. sibiricum*.

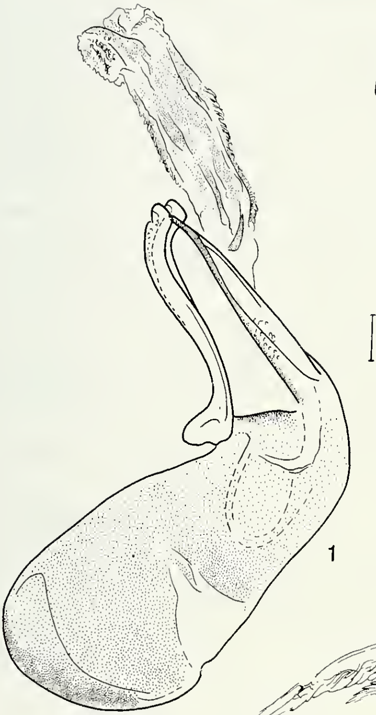
Cyparium sichuanum sp.n. Figs 4-6

Holotype ♂: China, Central Sichuan, Wolong Nat. Res., 100m, 24.V.1994, in bamboo litter, S. A. Kurbatov (MHNG).

Description. Length 3.7 mm, width 2.3 mm. Body black, frons and abdominal apex dark brown, legs reddish-brown, palpi and antennal segments 1 to 6 yellowish, segments 7 to 11 light brown. Pronotum and elytra without microsculpture, not iridescent. Head with frons finely punctate, at narrowest point 0.17 mm. Antennal segments 3 and 5 evenly long, segment 4 distinctly shorter, segment 6 1.4 times as long as wide, segment 7 about as long as wide, segments 8 to 10 gradually wider, each wider than long. Pronotum with lateral edges barely sinuate near base, lateral keels not exposed in dorsal view, punctation irregular, partly very fine, diameters of largest punctures usually much smaller than puncture intervals. Exposed portion of scutellum wider than long. Elytra with adsutural areas impressed and flat; lateral margin keels concealed at level of maximal width and near apex (dorsal view); discal punctation very irregular, four irregular, fairly coarse puncture rows hardly distinguishable; punctation

FIGS 1-7

Aedeagi in *Cyparium*; 1 to 3. *C. sibiricum* Solsky, internal sac extruded, parameres (2) and internal sac (3) in detail; 4 to 6. *C. sichuanum* sp. n., paramere (5) and internal sac (6) in detail; 7. *C. siamense* Löbl, internal sac. Scale bars = 0.1 mm in figs 2, 3, 5, 6, 7; = 0.2 mm in figs 1 and 4.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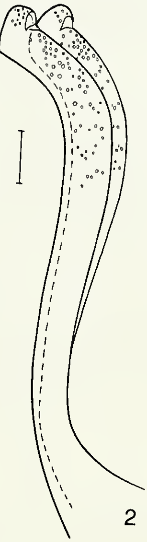
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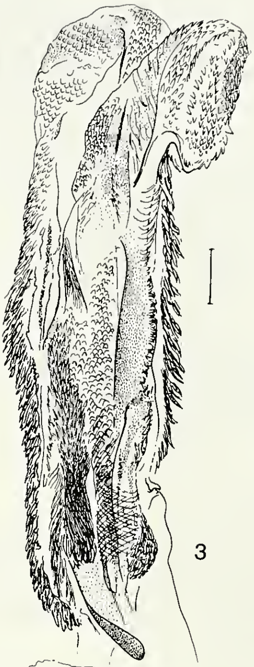
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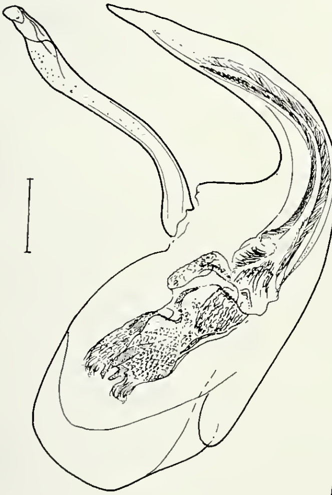
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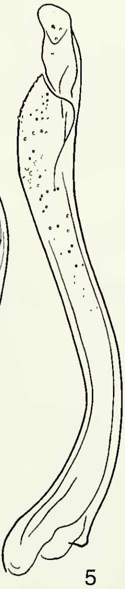
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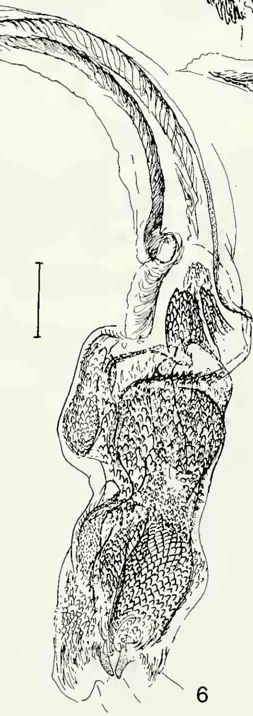
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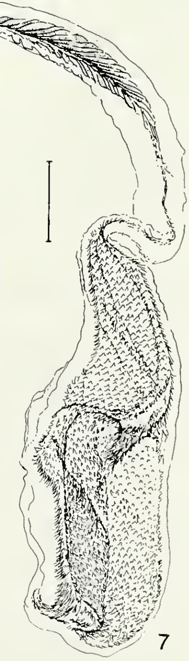
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extremely fine between puncture rows, along lateral edges, and at base; punctation coarse and dense on apical third of elytra and on area posterior humeral protuberance. Coarse elytral punctures larger than largest pronotal punctures. Prohypomera smooth. Mesepisterna and metasternum extremely finely punctate. Median portion of metasternum slightly raised in middle, with two wide and shallow admesal impressions. Metacoxal process raised in middle, with apical edge tridentate, more prominent in middle than at angles. Exposed abdominal segments with mesh-like microsculpture, in addition to brickwall-like microsculpture of intersegmental membranes. Propygidium and pygidium almost evenly finely punctate. First exposed sternite with fairly coarse and sparse punctation, following sternites very finely punctate. Tibiae slighty curved.

Male sexual characters. Segments 1 to 3 of protarsi and mesotarsi almost evenly wide, distinctly wider than segments 4 and 5. Aedeagus (Figs 4 to 6) 1.22 mm long. Apical portion of median lobe perpendicular to basal bulb. Parameres sinuate, widest subapically (lateral view), with apical lobe. Internal sac with membranes forming scale-like and denticulate structures, robust sclerites absent.

Comments. This species would key to the couplet «5» in the key of the Asian species of *Cyparium* (Löbl 1990a), together with *C. laevisternale* Nakane. It may be distinguished from *C. laevisternale* by the elytral punctation which is mostly coarse, and by the shape of the metacoxal process which is concave apically and not raised medially in *C. laevisternale*. The internal sac of the aedeagus resembles that of *C. siamense* (Fig. 7), although it is more complex. The parameres are not lobed in *C. siamense*.

Ascaphium Lewis

This genus comprises seven described species which are keyed in Löbl (1992). Three of them occur in Japan, two are described from China (one of them described originaly as a variety), one from Vietnam, and one from Nepal. Three unidentified species from Taiwan and Burma are represented in collection of the MHNG. Two additional, new species from China are described below.

KEY TO THE SPECIES OF *ASCAPHIUM* OF CHINA

1 Large species 6.5-7 mm long. Antennal segment 7 about 2 times as long as wide. Elytra with puncture rows almost reaching posterior tenth of elytra . . . . *A. sinense* Pic

- Smaller species 5-6 mm long. Antennal segment 7 about 1.6 times as long as wide. Elytra with puncture rows ending far anterior apical tenth of elytra 2

2 Antennae uniformly brown, or segments 7 to 10 slightly darkened. Elytra with four almost equal, long, discal puncture rows and one short lateral puncture row starting about at mid-length of elytral disc . . . . *A. minus* Pic

- Antennae with segments 7 to 10 much darker than segments 1 to 6 and 11. Elytra with discal puncture rows different 3

3 Elytra with four discal puncture rows not or hardly impressed, without additional short lateral row . . . . *A. alticola* sp. n.

- Elytra with four discal puncture rows distinctly impressed and two lateral, very short additional puncture row . . . . *A. irregulare* sp. n.

Ascaphium minus Pic

Type material examined. Lectotype ♂ labelled Kuatun Fukien China 18.11.46 (Tchung Sen.) / war. *minor* mihi (handritten by Pic) (MHNG); paralectotypes 1♂ and 1♀ labelled as the lectotype but from 25.4. and 10.5.46, respectively (MHNG) - by present designation.

Additional material. Same data but from 14.9.46 and without the original identification labels, 4 (MHNG).

Distribution. China: Fujian.

Comments. Specimens without Pic's original identification labels are likely syntypes but in doubt they are not considered as such. Additional specimens from Kuatun are in MNHN. The previous spelling "*minor*" combined with a neuter genus name is incorrect.

Ascaphium sinense Pic

Type material examined. Lectotype ♂ labelled Kuatun Fukien China 6.12.46 (Tschung Sen.) / 9739 E91/ Type *Ascaphium sinense* n. sp. (red handwritten) (NHRS); paralectotypes 3♂, 2♀ with same label data as the lectotype but from 6.3., 2.4., 22.10., 2.11. and 18.11.46, respectively. Each bearing Pic's handwritten label *Ascaphium sinense* (MHNG) - by present designation.

Additional material. From the same locality but from various dates in 1946, 29 (MHNG).

Distribution. China: Fujian.

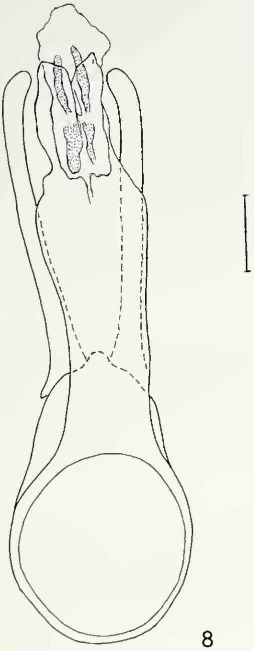
Comments. As under *A. minus*.

Ascaphium irregulare sp.n. Figs 8-10

Holotype ♂: China, Yunnan, 25°58'N, 100°21'E Jizu Shan, 2500-2700m, 6-10.VII.1994, V. Kubán (MHNG).

Paratypes: same data as holotype, 1 ♂, 4 ♀ (MHNG).

Description. Length 5.0-5.5 mm. Head, body, femora and tibiae uniformly black. Palpi, antennal segments 1 to 6 and 11, tarsi and apical abdominal segments light brown to ochraceous. Antennal segments 7 to 10 blackish. Frons at narrowest point 0.43-0.46 mm, with punctation irregular, fine and sparse anteriorly, gradually denser and coarser toward neck. Neck smooth, impunctate, not microsculptured dorsally. Antennae moderately long; segment 5 about 3 times as long as wide; segment 6 2.5 times as long as wide, club stout; segments 7, 8, 9 and 11 each 1.5 to 1.6 times as long as wide; segment 10 about 1.2 times as long as wide. Pronotum at base 2.0-2.2 mm wide; lateral edges oblique in basal half, arcuate in apical half; antebasal puncture row slightly impressed, contiguous in middle, consisting of coarse punctures; discal punctation sparse and very fine. Elytra uneven, somewhat flattened posterior basal fourth, impressed laterally and apically. Each elytron with four uneven discal puncture rows situated in relatively wide impressions, and with two additional lateral puncture rows consisting each of two to six coarse punctures. Two inner puncture rows straight,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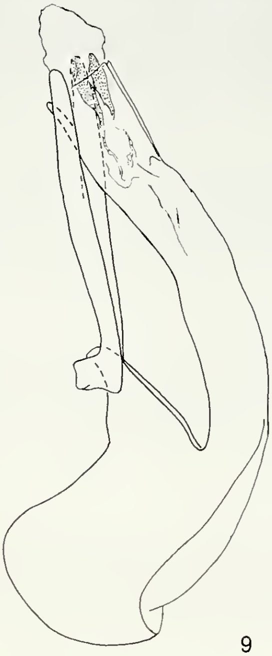
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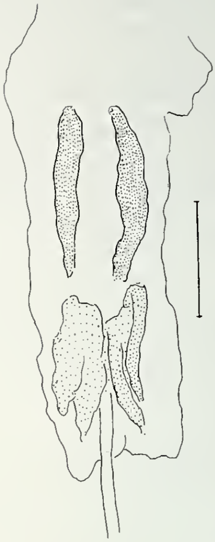
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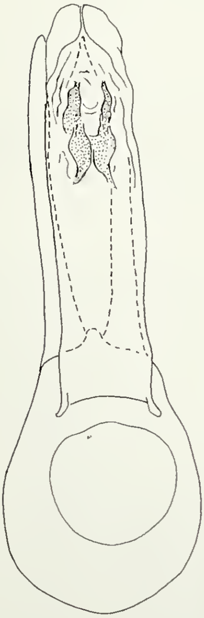
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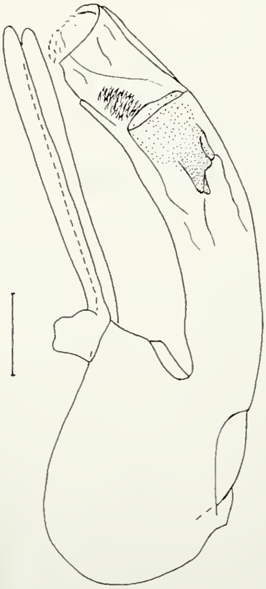
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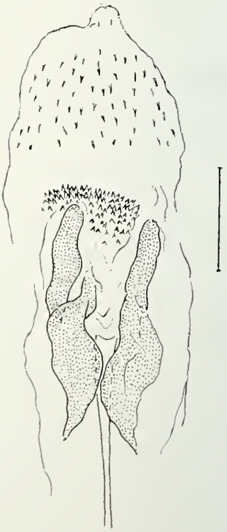
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starting distant from base and ending usually anterior mid-length of elytron; third puncture row sometimes interrupted, starting usually at base and ending posterior mid-length of elytron; fourth puncture row starting at base and curved, or starting posterior base, straight, ending near mid-length of elytron. Remaining elytral punctation very fine. Metasternum with two shallow, elongate medio-apical impressions. First exposed abdominal sternite with mediobasal protuberance; microsculpture absent, except near apical edge. Microsculpture obsolete on following three sternites, consisting of extremely fine striae on apical abdominal segments. Protibiae straight, mesotibiae and metatibiae slightly curved.

Male sexual characters. Segments 1 to 3 of protarsi distinctly widen. Aedeagus (Figs 8 to 10) 1.25-1.35 mm long. Median lobe with apical portion curved, widen toward tip; basal process large, prominent. Parameres diverging apically, curved and slightly widen at tip. Internal sac with asymmetrical complex of subapical sclerites joined to two strongly sclerotized rods.

Comments. This species is characterized by the pattern of the elytral puncture rows which are short, irregular, and impressed. Additional diagnostic characters are: antennal segments 7 to 10 strongly darkened and metasternum with two shallow medio-apical impressions. See also comments under *A. alticola.*

Ascaphium alticola sp. n.

Holotype ♀: China West Sichuan, 29°35'N 102°00'E 2900-3200m, Gonggashan-Hailuogou, 3-6.VII.1994, J. Farkač & D. Král (MHNG).

Paratype ♀: same data as holotype (MHNG).

Description. Length 6.3 mm. Colour as in *A. irregulare.* Frons at narrowest point 0.48 mm, with punctation very irregular, consisting of more or less large punctures mostly smaller than intervals between them. Largest punctures situated near neck. Neck entirely microsculptured, with few fine punctures in middle of dorsal surface. Antennae moderately long, with segment 5 about 3 times as long as wide; segment 6 twice as long as wide; club stout; segment 7 1.6 times as long as wide; segment 8 as wide as and slightly shorter than 7, about 1.4 times as long as wide; segments 9 and 10 evenly large, each 1.6 times as long as wide, slightly wider than segments 7 and 8; segment 11 1.6 times as long as wide. Pronotum at base 2.2 mm wide; lateral edges oblique in basal half, arcuate in apical half; antebasal puncture row slightly impressed laterally, contiguous in middle, consisting of fairly coarse punctures; discal punctation very fine. Elytra slightly flattened or impressed between basal fourth and mid-length, with uneven, inflexed sides. Each elytron with four discal puncture rows: first and second rows short, straight, not or slightly impressed, starting just posterior basal fifth and ending about at level of mid-length of elytron; third puncture row distinctly

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Figs 8-13

Aedeagi in *Ascaphium* and *Episcaphium*; 8 to 10. *A. irregulare* sp. n., internal sac (10) in detail; 11 to 13. *E. catenatum* sp. n., internal sac (13) in detail. Scale bars = 0.1 mm in figs 10 and 13, = 0.2 mm in figs 8, 9, 11 and 12.

impressed, slightly oblique, approximate to base, ending just posterior middle third of elytral length; fourth puncture row deeply impressed, curved, starting posterior humeral protuberance, ending slightly anterior apical third of elytron. Punctation very fine between and posterior puncture rows. Metasternum with two median striae shallow, approximate, diverging posteriorly. First exposed abdominal sternite with mediobasal protuberance; microsculpture consisting partly of extremely fine punctures, partly forming more distinct mesh-like pattern and transverse striae. Following sternites with microsculpture consisting of meshes and/or transverse striae. Protibiae straight, mesotibiae and metatibiae slightly sinuate.

Comments. This species is very similar to *A. irregulare* from which it may be distinguished by the pattern of the elytral puncture rows and by the metasternal striae diverging posteriorly.

Episcaphium Lewis

This genus comprises four species, from Japan, Nepal, East Malaysia, and Sri Lanka. The collections coming from China include three new species which may be easily distinguished by their colour pattern.

KEY TO THE SPECIES OF *EPISCAPHIUM*

1	Head, pronotum and elytra uniformly black	2
-	Colour pattern different	4
2	Abdomen uniformly black	3
-	Abdomen ochraceous, elytra without puncture rows	*E. strenuum* sp. n.
3	Elytra with fine puncture rows, without large basal protuberance. Metasternum not microsculptured	*E. catenatum* sp. n.
-	Elytra without puncture rows, with large basal protuberance. Metasternum with microsculpture consisting of transverse striae.	*E. callosipenne* (Achard)
4	Elytra uniformly reddish or ochraceous	5
-	Elytra with one or two dark transverse fasciae	6
5	Head, or head and pronotum, black	*E. semirufum* Lewis
-	Head, pronotum and elytra reddish	*E. uniforme* Löbl
6	Elytra with dark central and apical fasciae; puncture rows absent. Pronotum reddish	*E. saucineum* (Motschulsky)
-	Elytra with dark apical transverse spot and four puncture rows. Pronotum reddish, often with pair of dark basal spots	*E. haematoides* sp. n.

Episcaphium catenatum sp. n. Figs 11-13

Holotype ♂: China, Central Sichuan, Wolong Nat. Res., 1500m, 21.V.1994, S. A. Kurbatov (MHNG).

Paratypes: same data as holotype, 2 ♂, 3 ♀ (MHNG).

Description. Length 5 mm. Body and legs black, antennal segments 1 to 6, tip of antennal segment 11, palpi and apex of abdomen dark brown. Frons at narrowest point

0.42 mm, with punctation sparse and fine anteriorly, becoming more dense and coarse posteriorly, puncture diameters larger than puncture intervals near neck. Punctation fine and dense on tempora, fine and sparse on neck. Neck microsculptured, except on smooth centre. Antennae short, club segments stout. Antennal segment 5 distinctly longer than segment 6 (index 28:22), almost 2 times as long as wide; segment 6 about 1.4 times as long as wide; segments 7 and 8 each about 1.3 times as long as wide; segments 9 and 10 as long as wide or slightly longer than wide; segment 11 about 1.5 times as long as wide. Pronotum at base 1.9 mm wide, with lateral margin sinuate, concave near base, arcuate in apical half; antebasal puncture row irregular, sparse, not impressed laterally, interrupted at middle; discal punctation sparse and fine. Elytra without impressions, lacking discal grooves or striae, with four discal puncture rows (in addition to adsural, basal, and marginal puncture rows): first to third rows short, ending near mid-length of elytron, fourth row reaching apical fourth of elytron; first and second rows starting distant basal row, third and fourth rows joined to basal row. Punctures forming rows about as large as or slightly larger than punctures forming antebasal pronotal row; remaining punctures very fine. Humeral protuberance hardly distinct. Mesal groove of mesosternal process narrow or absent. Metasternum lacking microsculpture, extremely finely punctate, with median impression shallow, narrowed anteriorly, and with two small oval impressions near metacoxae. Abdominal tergit 7 with distinct lateral striae. Abdominal sternites microsculptured; microsculpture on first exposed sternite consisting of points and transverse striae, that on following sternites mesh-like and striate. First exposed sternite very finely and sparsely punctate. Tibiae slightly curved.

Male sexual characters. Segments 1 to 3 of protarsi distinctly enlarged. Aedeagus (Figs 11-13) 1.35-1.43 mm long. Median lobe with curved, cylindrical apical portion, and robust, prominent ventral process. Compression plate small. Parameres straight in lateral view, slightly arcuate in dorsal view. Internal sac with robust, apically bifid sclerite joined to pair of vertical laminae and to subapical lobe formed by flat denticles. Apical portion of internal sac covered by very fine spine-like structures oriented proximally.

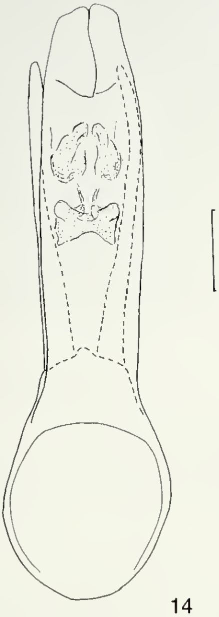
Comments. This species may be distinguished from its congeners, *E. callosipenne* excepted, by the uniformly black body. It differs notably from *E. callosipenne* by the absence of the metasternal microsculpture, shape of the elytra and size and shape of the segments of the antennal club.

Episcaphium strenuum sp. n. Figs 14-17

Holotype ♂: China, Yunnan, 27°06'N 115°15'E, Yulonshan, 3000-3500m, Camaizi pass, 18-25.VII.1990, V. Kubán (MHNG).

Paratypes: Sichuan, Gongga Shan, Hailuogou, 29°35'N 102°00' E, in front of Glacier 1, 2800m, 9.VII.1996, A. Smetana, 1 ♂ (MHNG); Sichuan, Daxue Shan, Gongga Shan, Hailuogou Glacier Park, above Camp III, 30.V.1997, A. Pütz, 1 ♂ (PCAP); Yunnan, Heishui, 35 km N Lijiang, 27°13'N, 100°19'E, 18.VI.-4.VII.1993, S. Bečvář, 3 ♀ (MHNG); same but 1-19.VII. 1992, 1 ♀; Yunnan, Jizu Shan, 2500-2700m, 25°58'N 100°21'E, 6-10.VII.1994, 1 ♀ (MHNG).

Description. Length 6.5-7.5 mm. Head, thorax, elytra and legs, tarsi excepted, black. Abdomen and tarsi reddish-brown or ochraceous. Antennae very dark brown to



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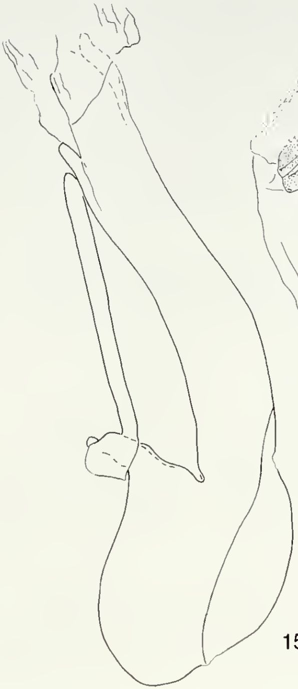

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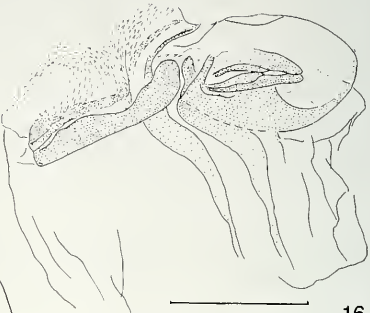

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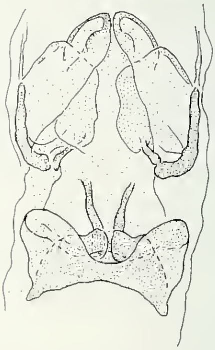

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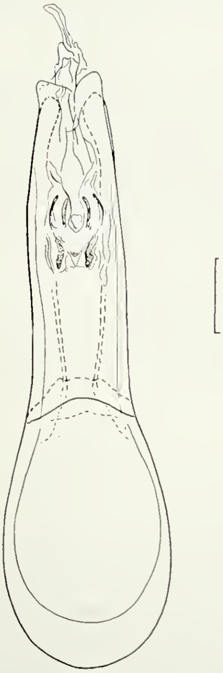

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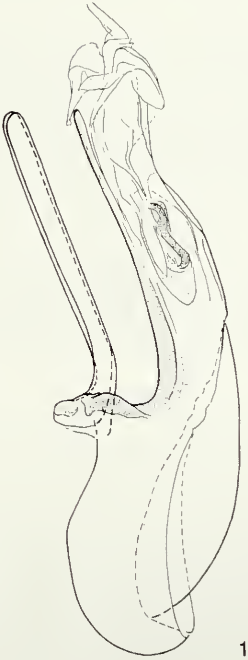

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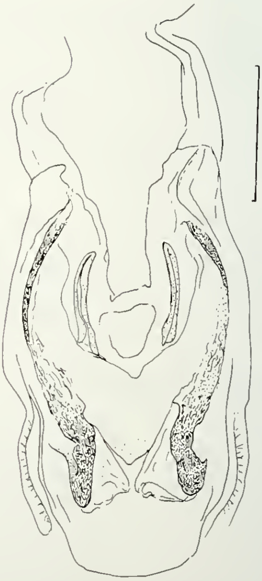

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blackish. Frons at narrowest point 0.50-0.60 mm wide, with punctation irregular, mostly coarse, fine anteriorly, dense along eye edges, at centre and near neck, sparse on admesal and anterior areas. Frontal punctures mostly much larger than intervals, as large as or smaller than intervals on surface sparsely punctate. Tempora finely punctate. Vertex sparsely and mostly finely punctate, with distinct microsculpture consisting of striae, smooth on small medio-anterior area. Antennae long, club with stout segments. Antennal segment 5 almost 4 times as long as wide; segment 6 distinctly shorter and hardly wider than segment 5, about 2.5 to 3 times as long as wide; segments 7 and 8 evenly wide, 8 slightly shorter than 7, 9 and 10; segment 7 about 1.8-1.9 times as long as wide; segments 8 and 9 each about 1.5-1.6 times as long as wide; segments 9 to 11 becoming gradually, slightly wider, 9 about 1.5-1.6 times as long as wide, 10 1.4 times as long as wide, 11 about 1.6-1.7 times as long as wide. Pronotum at base 2.2-2.4 mm wide, with lateral margin hardly sinuate, antebasal puncture row almost even, not or hardly interrupted at middle, slightly impressed laterally; punctation on disc rather dense and fine. Elytra with small, shallow, mediolateral impression and larger apical impression, lacking discal grooves, striae, without trace of puncture rows; punctation very fine, finer than that on pronotum. Humeral protuberance low. Mesosternal process without mesal groove. Metasternum extremely finely punctate, lacking microsculpture, with medio-apical impression shallow, narrowed anteriorly, and two small impressions near metacoxae; apical edge of metacoxal process slightly concave. Abdominal tergite 7 with distinct lateral striae. Abdominal sternites very finely punctate. First exposed sternite with punctation very fine and sparse, becoming denser mediobasally, and with microsculpture consisting of punctures. Following sternites with distinct microsculpture consisting of striae. Tibiae slightly curved.

Male sexual characters. Segments 1 to 3 of protarsi widen. Aedeagus (Figs 14-17) 2.05-2.10 mm long. Median lobe very weakly widen toward mid-length, almost evenly wide, sinuate and curved in lateral view. Compression plate large. Parameres slender, slightly curved in dorsal view, straight in lateral view. Internal sac with complex sclerites forming rods and plates, membranes bearing spine-like structures visible only while extruded.

Comments. This species may be easily distinguished from its congeners by the colour pattern.

Episcaphium haematoides sp. n. Figs 18-20

Holotype ♂: China, Yunnan, Heishui 35km west Lijiang, 27°13'N 100°19'E, 1-19.VII.1992, S. Bečvář (MHNG).

FIGS 14-20

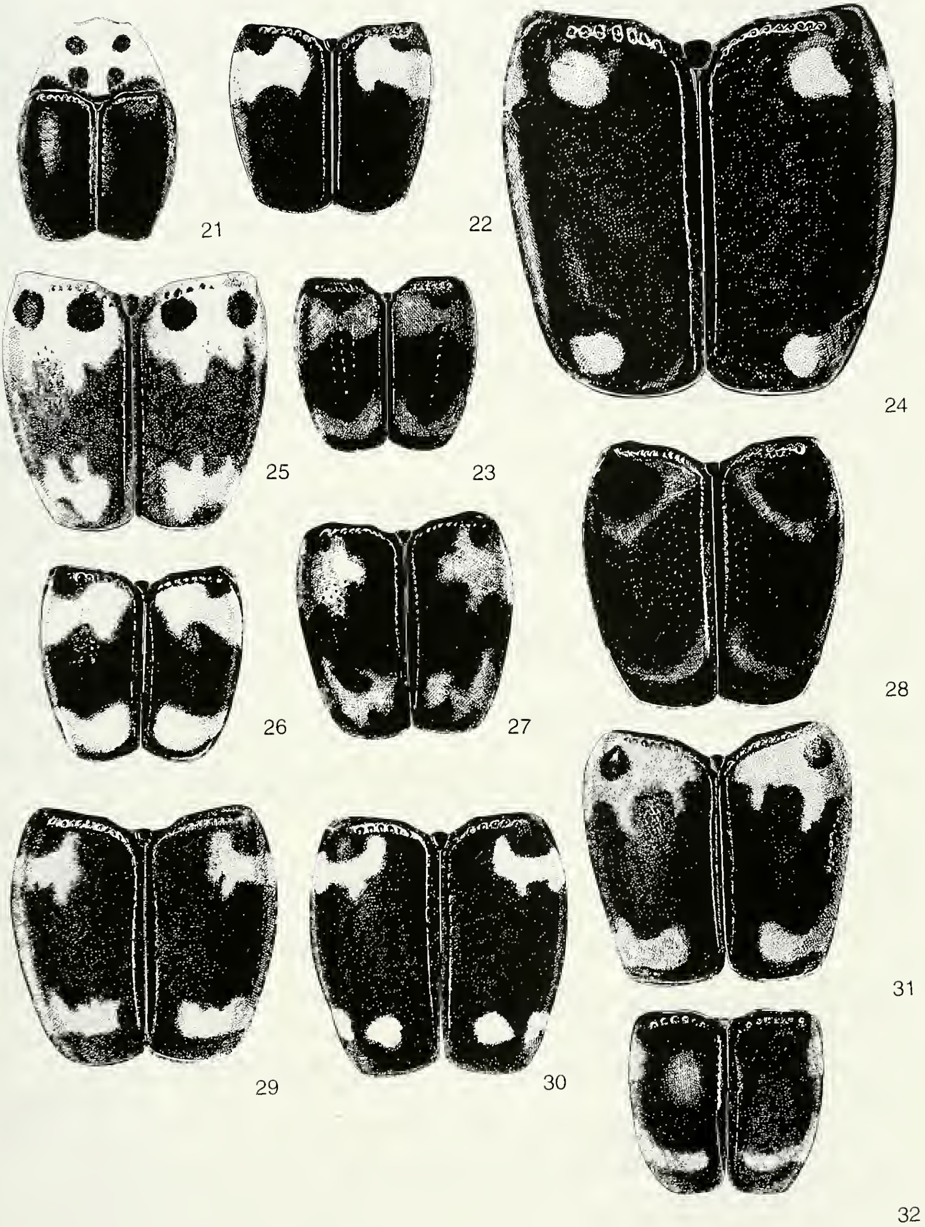
Aedeagi in *Episcaphium*; 14 to 17. *E. strenuum* sp. n., internal sac (16 and 17) in detail, and extruded (17); 18 to 20. *E. haematoides* sp. n., internal sac (20) in detail. Scale bars = 0.1 mm in figs 16, 17 and 20, = 0.2 mm in figs 14, 15, 18 and 19.

Paratypes: as holotype, 4 ♂, 4 ♀, 64 (MHNG, NHMB); same but 18.VI.-4.VII.1993, 127 (MHNG): Yunnan, Yulong Mts, 3900m, 27°10'N 100°13'E, 16-19.VI.1993, Bolm, 1 ♂ (NHMB); Yunnan, Jizu Shan, 2500-2700m, 25°58'N 100°21E, 6-7.VII.1994, V. Kubán, 1 ♂, 1 ♀ (MHNG); Habashan, southeastern slope, 27°20'N 100°11'E, 3-6.VI.1995, S. Bečvář, 20 (MHNG), NHMB); same but 2000-3000m, 10-13.VII.1992, V. Kubán, 1 ♂ (MHNG); Yunnan, Habashan, eastern slope, 3800-4600m, 27°19'N 100°08'E, 15.VII.1992, D. Král, 1 (MHNG); Sichuan, Sabde, ca 3000m, 1-3.VII.1992, R. Dunda, 1 (MHNG).

Description. Length 4.8-5.5 mm. Head black. Pronotum ochraceous or reddish, usually with two small, well delimited black spots situated between antebasal puncture row and basal edge, near lateral edges. Elytra as pronotum ochraceous or reddish, but each with an apical transverse black spot not touching lateral and sutural edges. Abdomen ochraceous or reddish with apical segments slightly lighter. Most of ventral surface ochraceous or reddish. Prosternum, prohypomera along posterior edge, mesosternum, mesepisterna, coxae, femora and tibiae black. Tarsi dark brown to blackish. Antennae with segments 1 to 6 very dark, almost black, club black. Frons at narrowest point 0.45-0.48 mm wide, with punctation irregular, mostly sparse and fine, denser and more coarse on centre and near neck. Punctures mostly smaller than intervals between them, some coarse punctures larger than intervals. Tempora impunctate. Vertex finely and sparsely punctate, lacking microsculpture. Antennae moderately long, with club stout. Antennal segment 5 2.3-2.4 times as long as wide; segment 6 shorter and stouter than segment 5, about 1.3 times as long as wide; segments 7 to 10 becoming gradually, slightly wider; segments 7, 9 and 10 each as long as segment 5; segment 7 slightly longer than wide; segment 8 slightly shorter than segment 7 and slightly wider than long; segments 9 and 10 each slightly wider than long; segment 11 about 1.3-1.4 times as long as wide. Pronotum as base 1.9-2.3 mm wide, with lateral margin somewhat rounded, antebasal puncture row interrupted at middle, slightly impressed laterally, discal punctures fairly sparse and very fine. Elytra lacking lateral and apical impressions, with four discal puncture rows consisting of evenly fine punctures, or punctures becoming finer porteriorly. Puncture rows starting posterior basal fifth or fourth of elytron and ending far anterior apical edge. Inner puncture row parallel to adsutural stria, outer puncture rows slightly oblique. Mesosternal process with raised, ridge-like edges, flattened in middle. Metasternum extremely finely punctate, lacking microsculpture, median impressions extremely shallow or absent. Abdominal tergit 7 with distinct lateral striae. Abdominal sternites very finely and sparsely punctate. Lateral portion of first exposed sternite with microsculpture consisting of punctures, median portion without microsculpture. Following three sternites with microsculpture consisting of transverse striae. Tibiae curved.

Male sexual characters. Segments 1 to 3 of protarsi distinctly widen. Aedeagus (Figs 18-20) 1.45-1.55 mm long. Median lobe narrowed apically, inflexed and slightly sinuate in lateral view. Basal process small, slightly prominent. Compression plate large. Parameres slightly arcuate in dorsal view, almost straight posterior curved base in lateral view. Internal sac with two median pairs of sclerotized rods, inner rods much smaller than outer rods.

Comments. This species may be easily distinguished by the colour pattern.



FIGS 21-32

Colour pattern in *Scaphidium*; 21. *S. melli* Löbl; 22. *S. unifasciatum* Pic; 23. *S. sinense* Pic; 24. *S. vernicatum* (Pic); 25. *S. klapperichi* Pic; 26. *S. delatouchei* Achard; 27. *S. yunnanum* Fairmaire; 28. *S. lunare* sp. n.; 29. *S. becvari* sp. n.; 30. *S. kurbatovi* sp. n.; 31. *S. stigmatinotum* sp. n.; 32. *S. sichuanum* sp. n.

Scaphidium Olivier

This genus comprises 257 species currently recognised as valid, distributed in major geographic realms with notable absence from New Zealand and oceanic islands. So far, eleven species of *Scaphidium*, including *S. chinense* Li, were described or recorded from China. With the material examined, this number is raised to 24, with eight species described as new.

The description of *S. chinense* Li from Heilongjiang is inadequate and its type material is not available for study. Therefore, this species is not treated in the present paper.

KEY TO THE SPECIES OF *SCAPHIDIUM* OF CHINA

1 Pronotum and elytra concolorous 2
- Pronotum and/or elytra with distinct colour spots or fasciae, or pronotum much lighter than elytra 6
2 Body uniformly ochraceous . . . . *S. vicinum* Pic
- Pronotum and elytra entirely black, or with metallic luster 3
3 Pronotum and elytra with metallic luster, elytra without discal puncture rows . 4
- Pronotum and elytra without metallic luster, elytra with discal puncture row . . . . *S. fukiense* Pic
4 Abdomen entirely black. Length 4.5-5.5 mm 5
- Head, pronotum and elytra blue, abdomen black with yellowish apical segments. Length 3.7 mm . . . . *S. inexspectatum* sp. n.
5 Prohypomera with microsculpture consisting of striae. Male protibiae evenly stout in apical half . . . . *S. jizuense* sp. n.
- Prohypomera with mesh-like microsculpture. Male protibiae becoming conspicuously stouter toward apical fifth . . . . *S. kubani* sp. n.
6 Elytra uniformly black, with discal puncture rows 7
- Elytra with spots or fasciae, puncture rows usually absent 8
7 Pronotum uniformly reddish-brown . . . . *S. egregium* Achard
- Pronotum reddish-brown with black base and four small black spots . . . . *S. melli* Löbl
8 Pronotum bicolorous, or uniformly light 9
- Pronotum uniformly black 11
9 Elytra black, with two narrow, reddish fasciae. Pronotum black, reddish along lateral edges . . . . *S. sinense* Pic
- Elytra mostly reddish, spoted, lacking fasciae 10
10 Elytra with two large light spots covering most of disc. Pronotum uniformly reddish-brown, or reddish-brown with darkened base. Pygidium uniformly reddish . . . . *S. flavomaculatum* Miwa & Mitono
- Elytra with five dark spots. Pronotum reddish, with two dark admesal fasciae. Pygidium with dark spot . . . . *S. formosanum* Pic
11 Pronotum with antebasal puncture row not impressed 12
- Pronotum with antebasal puncture row impressed 13

12 Pronotal antebasal puncture row inconspicuous, obsolete laterally. Pronotal punctation coarse, extremely dense on disc, with puncture intervals mostly much smaller than puncture diameters . . . . *S. stigmatinotum* sp. n.

- Pronotal antebasal puncture row conspicuous. Pronotal punctation fairly fine and dense on disc, with puncture intervals as large as or smaller than puncture diameters . . . . *S. klapperichi* Pic

13 Elytra with two small round subbasal spots and one small apical spot . . . . *S. vernicatum* (Pic)

- Elytra with subbasal fascia or spot; subapical fascia or spots present or absent 14

14 Elytra with subbasal spot and subapical fascia . . . . *S. sichuanum* sp. n.

- Elytra with subbasal fascia, with or without subapical fascia or spots 15

15 Elytra without subapical fascia or spots . . . . *S. unifasciatum* Pic

- Elytra with subapical fascia or spots 16

16 Elytra with two subapical spots, elytral punctation obsolete laterally . . . . *S. kurbatovi* sp. n.

- Elytra with subapical fascia, elytral punctation distinct laterally 17

17 Pronotal punctation very fine, almost obsolete. Antennae uniformly brown . . . . *S. delatouchei* Achard

- Pronotal punctation distinct. Entire antennae, or antennal club, black 18

18 Elytra with subbasal and subapical fasciae evenly slender, strongly arcuate, extending upto, or almost to, suture . . . . *S. lunare* sp. n.

- Elytra with subbasal and subapical fasciae uneven, not or slightly arcuate, not extending to suture 19

19 Male protibiae evenly stout in apical third, with small subapical notch 20

- Male protibiae distinctly expanded and angulate in apical third, without subapical notch 21

20 Male metafemora not expanded subapically . . . . *S. amurense* Solsky

- Male metafemora expanded subapically . . *S. montivagum* Shirôzu & Morimoto

21 Elytra with subbasal fascia slightly larger than subapical fascia, not reaching inner third of elytral width, edentale or weakly bidentate apically; posterior margin of subapical fascia edentate . . . . *S. becvari* sp. n.

- Elytra with subbasal fascia distinctly larger than subapical fascia, reaching inner third to fifth of elytral width, with distinctly bidentate or tridentale posterior margin 22

22 Male protibiae becoming moderately stouter toward apical fourth, with ventral margin hardly angulate at widest point. Posterior margin of subapical elytral fascia dentate . . . . *S. yunnanum* Fairmaire

- Male protibiae becoming strongly stouter toward apical fourth, with ventral margin strongly angulate at widest point. Posterior margin of subapical elytral fascia rounded . . . . *S. schuelkei* sp. n.

Scaphidium amurense Solsky

Scaphidium tsushimense Shirôzu & Morimoto, **syn. n.**

Distribution. Japan: island Tsushima, pref. Gunma; Far East Russia; Korea; recorded from «Northern China» (Löbl 1968).

Comments. I have not examined the type material of *S. amurense* and *S. tsushimense*. The synonymy is based on the absence of distinguishable characters in specimens I have examined from Korea, Japan (including Tsushima), and Russia, which fit the respective descriptions, and on the fact that only a single species of *Scaphidium* is known to occur in Far Eastern Russia (Lafer 1989) and on the island Tsushima (Shirôzu & Morimoto 1963).

Scaphidium delatouchei Achard

Type material examined. Lectotype, labelled Kouang-Toung (de Latouche) / Museum Paris Chine H. Donckier / Kuatung / Fairmaire det. cf Ann.Fr. 1899 / *Scaphidium* n. sp. [handwritten by M. Pic] / *Scaphidium Delatouchei* m J. Achard det. Type / Type / (MNHN) - by present designation.

Additional material. China, «Yunnan», 1 (MHNG).

Distribution. China: Guandong, Yunnan.

Comments. The legs of the lectotype have been strongly damaged by dermestids. The specimen from Yunnan is a female likely conspecific with the male lectotype. The shape of the elytral fasciae (Fig. 26) in this species is similar to that in *S. sinense*, but the fasciae are larger in *S. delatouchei*.

Scaphidium egregium Achard

Material examined. China, Hong Kong, N:T., V. 1996, G. de Rougemont, 4 (MHNG).

Distribution. Singapore; China: Hong Kong.

Scaphidium flavomaculatum Miwa & Mitono

Material examined. China, Sichuan, 103°20'E, 29°30'W, Mt. Emei, 500-1200m, 4-18.V.1989, 1 (MHNG).

Distribution. China: Sichuan; Taiwan.

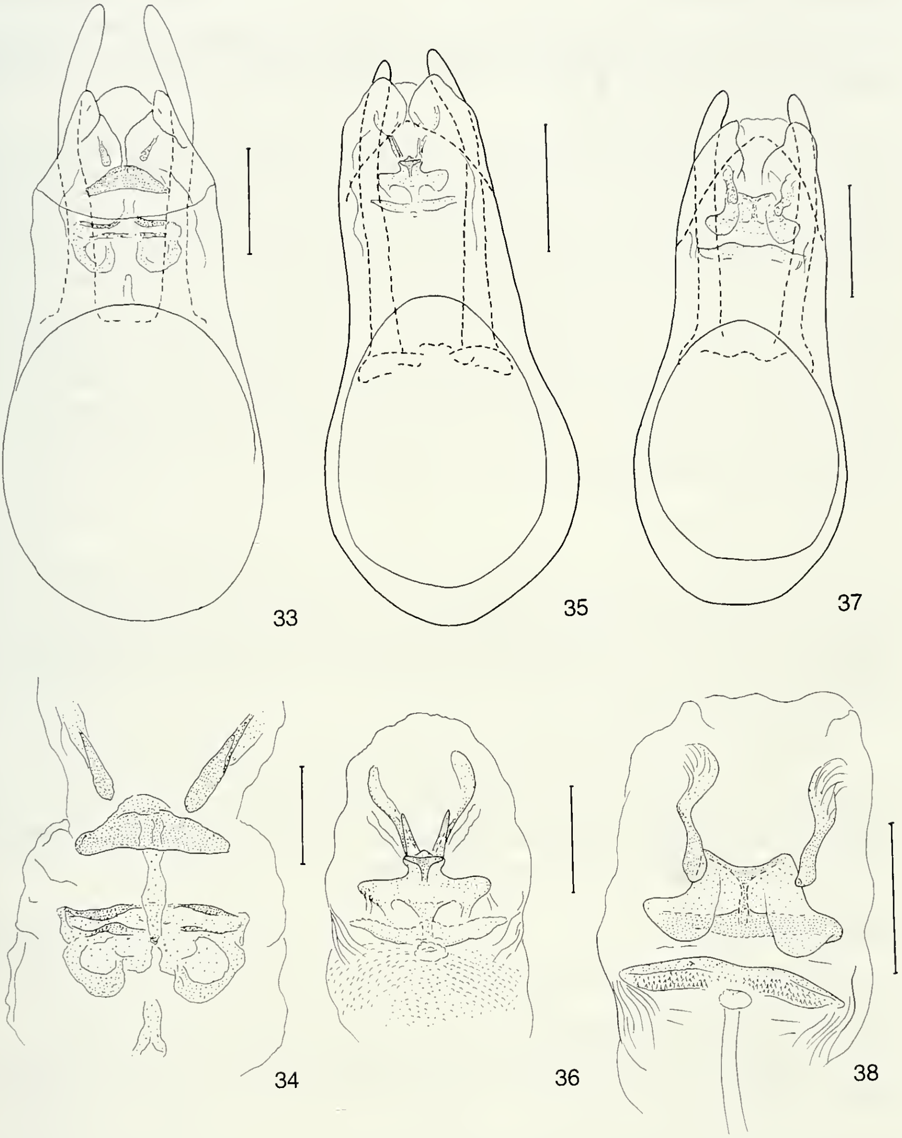
Comments. I have compared the female specimen from Mt. Emei with a male from «Formosa» (MHNG). Both specimens exibit the same conspicuous colour pattern, and are very similar in other diagnostic characters. These are the sole specimens which I have seen to fit the original illustration of *S. flavomaculatum*. The location of the type material of *S. flavomaculatum*, as that of other scaphidiines described by Miwa & Mitono (1943), is unknown to me.

Scaphidium formosanum Pic

Material examined. China, labelled: Kiangsi, 1929, J. Sedláček, 1 (MHNG).

Distribution. Taiwan; China: Jiangxi.

Comments. This species is well characterised by the colour pattern, in combination with two discal puncture rows on each elytron. Thus, I have no doubt about the conspecificity of the female from Jiangxi with the Taiwanese specimens examined.



FIGS 33-38

Aedeagi in *Scaphidium*; 33 and 34. *S. fukiense* Pic; 35 and 36. *S. inexspectatum* sp. n.; 37 and 38. *S. kubani* sp. n. Respective internal sacs (34, 36, 38) in detail. Scale bars = 0.2 mm in figs 33, 35, 37; = 0.1 mm in figs 34, 36, 36.

Scaphidium fukiense Pic Figs 33, 34

Type material examined. Lectotype ♂, labelled: Kuatun Fukien China 6.3.46 (Tschung Sen) / Type *Scaphidium fukiense* det. Pic n. sp. [red, handwritten] / 9784 E91 / Lectotype *Scaphidium fukiense* Pic det. Löbl, 1998 (NHRS) - by present designation.

Distribution. China: Fujien.

Comments. This species may be distinguished by the following characters in combination: body, antennae and legs (including tarsi) entirely black; elytra each bearing one discal row of coarse punctures; remaining discal punctation obsolete; pronotal punctation very fine; prohypomera smooth, without impressions; ventrite I extremely finely punctate, without microsculpture; male metasternum with impressed, coarsely punctate and pubescent median area extended to level of mesocoxae; metasternal pubescence fairly short, recumbent to oblique, not forming setal tufts; metacoxal process not notched; male tibiae long and slender; protibiae and mesotibiae slightly curved, metatibiae straight; profemora lacking obvious sexual characters; male protibiae becoming slightly stouter toward apex, without subapical notch; aedeagus 1.20 mm long, as in Figs 33, 34.

Scaphidim klapperichi Pic Fig. 25

Type material examined. Lectotype ♂, labelled: Kuatun Fukien China 30.5.46 (Tschung Sen) / Type *Scaphidium klapperichi* Pic n. sp. (red handwritten) Lectotype *Scaphidium klapperichi* Pic det. Löbl 1998 (NHRS). Paralectotype ♂, labelled: Kuatun Fukien China 18.5.46 (Tschung Sen.) / *Scaphidium Klapperichi* n. sp. (handwritten by Pic) / paralectotype *Scaphidium klapperichi* Pic det. Löbl 1997 (MHNG) and paralectotype / with same data but from 16.5 (MNHN) - by present designation.

Distribution. China: Fujian.

Comments. This species is characterized by the shape of the large reddish basal elytral fascia surrounding two small black spots (Fig. 25). In addition, the pronotal antebasal puncture row is not, or barely impressed laterally, and consists of punctures which are much larger than other pronotal punctures.

Scaphidium melli Löbl Fig. 21

Material exlamined. China, Yunnan, Lijiang, 2600m, 30.VI.-2.VII.1990, L. & M. Bocák, 3 (MHNG, NHMB).

Distribution. China: Yunnan.

Comments. This species may be easily distinguished by the conspicuous colour pattern of the pronotum (Fig. 21).

Scaphidium montivagum Shirôzu & Morimoto

Material from China not examined.

Distribution. Japan; China: Jilin.

Comments. This species is a member of a group of very similar species (*S. amurense* Solsky, *S. yasumatsui* Shirôzu & Morimoto, *S. takemurai* Nakane), which are distinguished by their aedeagi and the male sexual characters on the legs. It was recorded from China by Li (1992).

Scaphidium sinense Pic Fig. 23

Type material examined. Holotype ♀, labelled: Kuatun Fukien China 10.5.46 (Tschung Sen) / 9820 E91/type *Scaphidium sinense* det. Pic, n. sp. (NHRS).

Additional material. China, Fukien, Kuatun, 14.V.1946, Tschung Sen, 1 ♀ (MHNG).

Distribution. China: Fujien.

Comments. In contrary to the statement in the description of this species made by Pic (1954), the antennal club is black, with apex of the ultimate segment slightly lighter. *Scaphidium sinense* may be distinguished by the shape of the elytral fasciae (Fig. 23), in combination with the presence of fine discal puncture rows, the pronotum reddish laterally, and the prohypomera with reddish upper portion.

Scaphidium unifasciatum Pic Fig. 22

Material examined. China, labelled «Yunnan Fou», 1 (MHNG).

Distribution. China: Yunnan.

Comments. This species is unique within the Chiese *Scaphidium* in having a single large, reddish, subbasal fascia on each elytron, while the remaining surface of the body is entirely black (Fig. 22).

Scaphidium vernicatum (Pic) Fig. 24

Type material examined. Lectotype ♂, labelled: Kuatun, Fukien 28.10.46 (Tschung Sen.) / ♂ / Type *Scaphium vernicatum* n. sp. [red, handwritten] / 9822 E91 / Lectotype *Scaphidium vernicatum* (Pic) det. Löbl 1998 (NHRS) and 2 ♀ paralectotypes with the same locality labels, but from 4.5.1946, and identification labels handwritte by Pic (MNHN, MHNG) - by present designation.

Additional material. 1 ♂ labelled China, Prov. KIiangsi (MHNG).

Distribution. China: Fujian, Jiangxi.

Comments. This species may be easily distinguished from its congeners, except *S. perpulchrum* Csiki, by the large size of the body (length, including head and abdomen: 9.5-11 mm). The colour pattern of *S. vernicatum* is distinctive (Fig. 24).

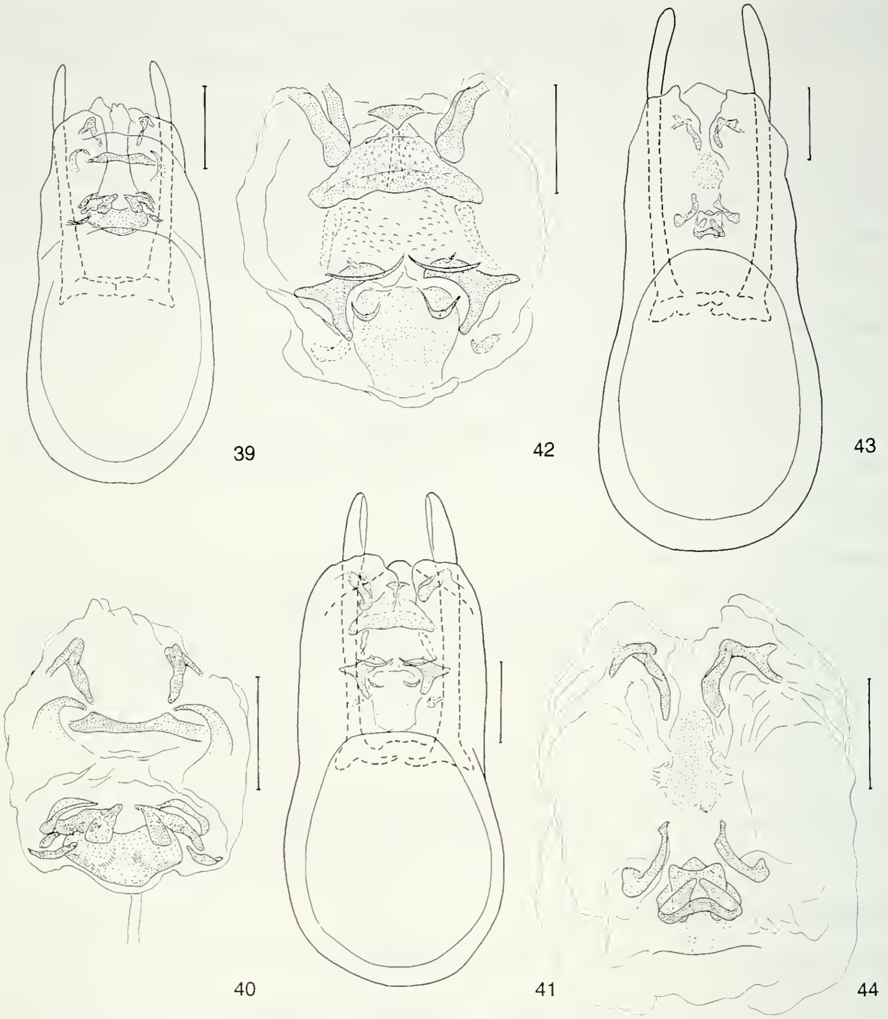
Scaphidium yunnanum Fairmaire Figs 27, 39, 40

Type material examined. Lectotype ♀ labelled Yunnan A. Davis/Type (MNHN) - by present designation.

Material examined. China, Sichuan, Liziping near Shimian, 200km SW of Ya'an, 27.V.-3.VII.1991, Z. Kejval, 1 (MHNG); South Sichuan, 20km south Muli (Bowa), 101°13'E, 27°45'N, 3500m, 29.VI.1998, M. Bocák, 1 (SMNS); Yunnan, Yulongshan, Ganhaizi Pass, 3000-3500m, 27°06'N, 100°15'E, 18-23.VII.1990, V. Kubán, 2 (MHNG); Yunnan, Yulongshan, Baishui, 2900-3500m, 27°08'N, 100°14'E, 7-12.VII.1990, V. Kubán, 2 (MHNG); Yunnan, Dali, Cangshan, 5.VI.1993, Bolm 1 (MHNG); Yunnan, Gaoligong Mts, 2200-2500m, 24°57'N, 98°57'N, 98°45'E, 8-16.V.1995, O. Semela, 1 (MHNG); Yunnan, Jizu Shan, 2500-2700m, 25°558N, 100°21'E, 6-10.VII.1994, V. Kubán, 3 (MHNG, NHMB).

Distribution. China: Sichuan, Yunnan.

Comments. This species may be distinguished by the subbasal elytral fasciae which are large and bidentate or tridentate anteriorly and posteriorly (Fig. 27). The aedeagus is characterized by a pair of flat, strongly arcuate, teeth-like rods situated at each side of a transverse central sclerite of the internal sac (Figs 39, 40).



FIGS 39-44

Aedeagi in *Scaphidium*; 39 and 40. *S. yunnanum* Fairmaire; 41 and 42. *S. becvari* sp. n.; 43 and 44. *S. lunare* sp. n. Respective internal sacs (40, 42, 44) in detail. Scale bars = 0.3 mm in figs 39, 41, 43; = 0.2 mm in figs 40, 42, 44.

Scaphidium inexspectatum sp. n. Figs 35, 36

Holotype ♂: China, Yunnan, Gaoliong Mts, 1500-2500m, 25°22'N, 98°49'E, 17-24.V. 1995, O. Semela (MHNG).

Description. Length 3.7 mm. Body black. Head, pronotum, elytra, femora and tibiae with blue metallic luster. Abdominal sternites 3 to 6 and tergite 6 black, following abdominal segments yellowish. Tarsi and antennal segments 1 to 6 very dark brown to black, antennal segments 7 to 11 black. Frons and vertex irregularly, fairly coarsely and densely punctate, except for smooth upper portion of frons; smallest width between eyes 0.25 mm. Pronotum hardly raised above level of elytra, moderately inflexed anteriorly, with lateral edges straight in basal half, convexly rounded in anterior half; antebasal puncture row distinctly impressed, not interrupted in middle, discal punctation dense and fairly coarse, consisting of sharply delimited punctures; intervals between punctures mostly as large as, some intervals upto two times as large as puncture diameters. Elytra weakly convex, without humeral protuberance and without any impressions; adsutural area flat anteriorly, raised posteriorly; discal punctation similar to that on pronotum, puncture rows absent; sutural stria punctures about as large as discal punctures, basal stria punctures coarse. Prohypomera with very shallow impressions, very finely punctate, not microsculptured. Mesepisterna smooth. Sternite I lacking microsculpture, with punctation coarser than that on following sternites and on lateral portions of metasternum. Following abdominal segments with microsculpture consisting of punctures. Legs short, tibiae slightly curved.

Male sexual characters. Metasternum impressed in middle, with prominent, slightly rounded metacoxal process. Metasternal pubescence long, raised laterally, recumbent at middle, covering entire median portion of metasternum, mesocoxal process excepted. Profemora with ventral side slightly flattened. Protibiae gradually stouter toward apex, not notched, not expanded subapically. Metafemora without particular sexual characters. Aedeagus (Figs 35, 36) 0.95 mm long. Median lobe moderately narrowed posterior basal bulb, with apex obtuse and inflexed. Parameres subparallel in basal two thirds, curved in apical third, slightly widen near tip. Internal sac with transverse, weakly sclerotized basal plate, central transverse plate joined to oblique lateral sclerites, and with distal protuberance bearing diverging rods.

Comments. This species resembles *S. cyanellum* Oberthür, *S. jizuense* and *S. kubani*. It may be easily distinguished by the small size of the body, the prohypomera lacking microsculpture, the male protibiae becoming evenly stouter toward apex and the shape of the sclerites of the internal sac of the aedeagus.

Scaphidium jizuense sp. n.

Holotype ♂: China, Yunnan, Jizu Mts, 2800m, 25°58'N, 100°21'E, 30.V.-3.VI.1993, Bolm (MHNG).

Description. Length 4.4 mm. With most diagnostic characters as *S. inexspectatum*. It differs as follows: Body, including exposed abdominal segments, blue metallic shining, antennae and legs uniformly black. Frons at narrowest point between eyes 0.30 mm. Pronotum with discal punctation slightly finer, more sparse and more irregular, intervals between punctures mostly as large as, some upto five times as large as, puncture diameters. Elytra with adsutural area entirely raised, discal punctation notably coarser and denser than that on pronotum. Prohypomera with microsculpture consisting of longitudinal striae becoming obsolete near upper edge. Mesepisterna very finely punctate. Basal and middle portions of sternite I with microsculpture consisting of punctures, latero-apical portion of third sternite transversely striate; laterobasal portions of fourth and fifth sternite with conspicuous longitudinal wrinkles. Legs fairly long. Metasternal process slightly extended, truncate, with a minute notch in middle; entire metasternal pubescence short and recumbent. Protibiae almost straight, parallel-sided in apical half.

Comments. This species may be easily distinguished from its similar congeners by the short metasternal pubescence, the base of the abdominal sternites 4 and 5 wrinkled, and the apical half of the male protibiae evenly wide. The aedeagus of the specimen was lost while dissection.

Scaphidium kubani sp. n. Figs 37, 38

Holotype ♂: China, Yunnan, Gaoligong Mts, 1500-2500m, 25°22'N, 98°49'E, 17-24.V.1995, O. Semela (MHNG).

Description. Length 5.5 mm. Body black. Head, prohypomera, mesepisterna, lateral portions of metasternum, abdominal tergites, femora and tibiae with blue metallic luster, pronotum and elytra with violet metallic luster. Prosternum, mesosternum and middle portion of metasternum without metallic luster. Tarsi and antennal segments 1 to 6 blackish-brown, antennal segments 7 to 11 black. Frons at narrowest point between eyes 0.33 mm, finely and densely punctate, punctures mostly smaller than intervals between them, smaller than vertexal punctures. Pronotum not raised above level of elytra, moderately inflexed anteriorly, with lateral edges weakly sinuate; antebasal puncture row slightly impressed, not interrupted in middle, discal punctation dense and fine, consisting of punctures sharply delimited, mostly larger than those on frons and 2-3 times smaller than intervals between them. Elytra weakly convex, with adsutural area raised, without humeral protuberance and impressions; discal punctation almost as that on pronotum, distinct puncture rows absent; sutural stria punctures slightly larger than discal punctures; basal stria punctures coarse. Prohypomera impunctate, with mesh-like microsculpture. Mesepisterna very finely punctate. Exposed abdominal segments with even fine punctation and microsculpture consisting of points. Legs fairly long.

Male sexual characters. Metasternum impressed, metacoxal process not extended, truncate. Metasternal pubescence covering most of median portion of metasternum, starting about at level of posterior edge of mesocoxa, short and recumbent at middle and anteriorly, long and erect posteriorly, forming conspicuously long, erect tufts. Profemora slightly expanded anteriorly, with a ridge along anterior edge. Protibiae becoming gradually stouter toward apical fifth, not notched, slightly narrowed from widest point toward apex, with ventral edge arcuate, dorsal edge straight in apical two thirds. Mesotibiae and metatibiae slightly curved, becoming slightly stouter toward apex. Metafemora lacking obvious sexuel characters. Aedeagus (Figs 37, 38) 1.45 mm long. Median lobus parallel posterior basal bulb, gradually inflexed and narrowed toward obtuse tip. Parameres slightly curved, somewhat widen apically. Internal sac with two lateral, vertical laminae, transverse basal rod joined to weakly sclerotized plate, apical lamina strongly sclerotized along mid-line and at posterior edge, and narrowed posteriorly, and two oblique latero-apical rods.

Comments. This species may be easily distinguished from its congeners of similar size, except *S. violaceipenne* Pic, by colour pattern. *Scaphidium violaceipenne* differs in having the pronotum raised above the level of the elytra, the discal punctation of the pronotum and elytra much more sparse, the puncture intervals about 10 to 20 times larger than the puncture diameters, the male protibiae evenly slender, the male profemora flattened ventrally, with sharp ventral edges, the aedeagus 1.4 mm long, with the parameres strongly arcuate.

Scaphidium becvari sp. n. Figs 29, 41, 42

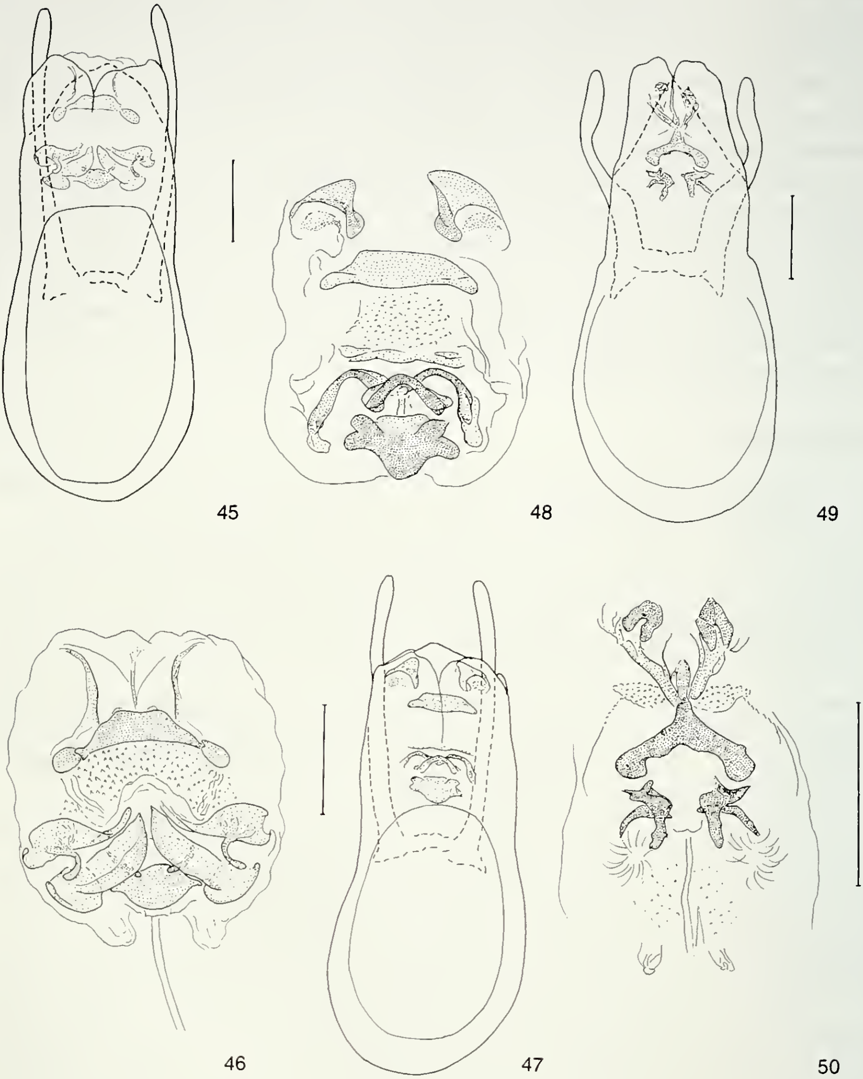
Holotype ♂: China, Yunnan, 27°20'N, 1200°11'E, Habashan, 2500-3800m, southeastern slope, 3-6.VI.1995, S. Bečvář (MHNG).

Paratypes: as holotype, 4 ♂, 4 ♀; same but 2000-3000m, 10-13.VII.1992, V. Kubán, 1 ♀ (MHNG); Yunnan, Heishui, 35 km north Lijiang, 27°13'N, 100°19'E, 18.VI.-4.VII.1993, S. Bečvář, 13 ♂, 7 ♀ (MHNG); same but 1-19.VII.1992, 21 ♂, 25 ♀ (MHNG); Yunnan, Weibaoshan, 2800-3000m, 25°12'N, 100°24'E, 29-30-VI.1992, D. Král, 1 ♀ (MHNG); Yulongshan, 3000-3500m, Ganhaizi Pass, 27°06'N, 100°15'E, 18-23.VII.1990, V. Kubán, 5 ♂, 6 ♀ (MHNG,NHMB); same but 18-23.VII.1990, D. Král, 1 ♂, 1 ♀ (MHNG); Yunnan, Yulong Mts, 27°07', 100°13'N, 3400m, 20-21.VI.1993, Bolm 6 ♂, 5 ♀ (MHNG, NHMB); West Sichuan, Daxue Shan, Hailuogou, Glacier Park (Gongga Shan), Camp 1, 2100m, 29°36'N 102°04'E, 27-31.V.1997, D. V. Wrase, 1 ♀ (PCMS); South Sichuan, 30km NW Muli (Bowa), 101°05'E, 28°07'N, 3500m, 2.VI.1998, M. Bocák, 1 ♂, 1 ♀ (SMNS); South Sichuan, 20km S Muli (Bowa), 101°13'E, 27°45'N, 3500m, 29.VI.1998, M. Bocák, 1 ♀ (SMNS).

Description. Length 6-7 mm. Body black, each elytron with two ochraceous fasciae (Fig. 29). Very similar to *S. lunare*, differs by: Elytra with subbasal fascia short and narrow, forming a small arc around humerus, extended from lateral edge about to mid-width of elytron (dorsal view), almost even anteriorly, bidentate posteriorly. Subapical fascia almost evenly sinuate, shorter than interval between posterior margin and apical edge of elytron. Frons very sparsely punctate, at narrowest point 0.42-0.45 mm.

Male sexual characters. Legs and metasternum as in *S. lunare*. Aedeagus (Figs 41, 42) 1.75-1.90 mm. Median lobe subparallel posterior basal bulb, with tip prominent, rounded and inflexed. Parameres parallel or slightly converging apically, with inner side flattened apically and sharply delimited. Internal sac with basal sclerites consisting of round central plate bearing slender apophysis, pair of robust trifid sclerites joined each to weakly sclerotized, small, basal structure, and pair of slender, curved rods overlapping partly trifid sclerites. Apical sclerites formed by subtrianglural, central plate joined ventrally to median rod, and to pair of V-shaped rods.

Comments. This species may be easily distinguished from *S. lunare* by the shape of the elytral fasciae.



FIGS 45-50

Aedeagi in *Scaphidium*; 45 and 46. *S. schuelkei* sp. n.; 47 and 48. *B. kurbatovi* sp. n.; 49 and 50. *S. sichuanum* sp. n. Respective internal sacs (46, 48, 50) in detail. Scale bars = 0.3 mm in figs 45, 47; = 0.2 mm in figs 46, 48, 49; = 0.1 mm in figs. 50.

Scaphidium kurbatovi sp. n. Figs 30, 47, 48

Holotype ♂: China, Central Sichuan, Wolong Nat. Res., 1500m, 22.V.1994, on log with moss, S. A. Kurbatov (MHNG).

Paratypes: same data as holotype, 3 ♂ (MHNG).

Description. Length 6 mm. Body, femora and tibiae black, antennae, tarsi and apical abdominal segments very dark brown. Each elytron with narrow, reddish, subbasal fascia and two small, reddish, subapical spots (Fig. 30). Anterior margin of subbasal fascia semicircular, apical margin bidentate. Frons and vertex finely and sparsely punctate; frons at narrowest point between eyes 0.32 mm. Pronotum not raised above elytra, strongly inflexed anteriorly, with lateral edges moderately sinuate, antebasal puncture row impressed, not interrupted at middle, discal punctation almost evenly fine and sparse, similar to that on frons, consisting of very shallow punctures; puncture intervals mostly 3 to 5 times as large as puncture diameters. Elytra weakly convex, humeral area not raised, discal impressions absent, disc slightly impressed apically; adsutural area flat and impressed; discal punctation fine and sparse on large inner portion, mostly finer than pronotal punctation, obsolete on lateral area; discal puncture rows absent; sutural stria puncture row relatively fine, basal stria row deeply impressed, with punctures about as coarse as punctures forming pronotal antebasal row. Prohypomera slightly uneven, without microsculpture. Mesepisterna very finely punctate. Exposed abdominal tergites very finely punctate and with microsculpture consisting of punctures. Centre of sternite I with microsculpture consisting of punctures, lateral portions with mesh-like microsculpture. Legs long, mesotibiae and metatibiae curved.

Male sexual characters. Metasternum deeply impressed in middle, with long semi-erect pubescence absent from medio-anterior portion, and two long lateral setal tufts. Profemora with ventral side expanded and forming anterior mid-length flat protuberance, followed by ridge. Protibiae hardly sinuate, gradually wider from base to apical fourth, angulate at widest point, narrowed toward apex. Metafemora slightly expanded in middle portion. Aedeagus (Figs 46, 47) 1.90-2.0 mm long. Median lobe subparallel posterior basal bulb, with tip angular and inflexed. Parameres slightly curved, almost evenly wide. Internal sac having basal complex of sclerites, one transverse subapical sclerotized plate with obliquelly prominent basal angles, and two apical inflexed rods. Basal sclerite complex consisting of one plate, one central and two apical, arcuate rods.

Comments. This species is similar to *S. nepalense* Löbl from which it differs notably by the shape of the male protibiae and sclerites of the internal sac of the aedeagus. The protibiae are strongly widen and angulate subapically and the subapical sclerite is rhomboid in *S. nepalense.* The new species may be easily distinguished from its congeners by the elytra with punctation obsolete laterally in combination with the presence two subapical, reddish spots, and the sexual characters as described.

Scaphidium lunare sp. n. Figs 28, 43, 44

Holotype ♂: China, Yunnan, Heishui, 35 km N of Lijiang, 27°13'N, 100°19'E, 1-19.VII. 1991, S. Bečvář (MHNG).

Paratypes: same data as holotype, 5 ♂, 4 ♀; same data but 18.VI.-4.VII.1993, 5 ♂, 6 ♀; Yunnan, Hengduan Mts Yunling, 3300m, 27°14'N, 99°27'E, 17-19.VII.1996, V. Kubán, 1 ♀ (all MHNG).

Description. Length 7-8 mm. Body black, antennal segments 1 to 6 and tarsi dark brown. Each elytron with two evenly narrow, strongly arcuate, reddish fasciae (Fig. 28). Subbasal fascia forming large, almost semicircular arc between lateral edge and scutellum. Subapical fascia forming arc between lateral ridge and sutural stria, narrower than smallest interval to apical elytral edge. Frons and vertex finely punctate, almost impunctate on area between posterior eye margins, at narrowest point 0.45-0.50 mm. Pronotum not raised above level of elytra, evenly inflexed anteriorly, with lateral edges oblique or hardly sinuate; antebasal puncture row impressed, not or hardly interrupted at middle, consisting of even, relatively small punctures; discal punctation fine and dense, consisting of well delimited punctures mostly distinctly smaller than puncture intervals. Elytra weekly convex, with adsutural area flat anteriorly, raised posteriorly; sutural stria punctures small, very small near apex, basal stria punctures large. Discal punctation fine and dense, similar to that on pronotal disc. Humeral area not raised; apical impression absent. Prohypomera and metasternum very finely punctate, mesepisterna with punctation slightly less fine. Exposed abdominal tergites, and sternites, evenly finely punctate and with microsculpture consisting of punctures. Lateral impression of sternite I with mesh-like microsculpture. Legs long.

Male sexual characters. Metasterum impressed in middle, not prominent. Metasternal pubescence covering posterior two thirds or entire median portion, recumbent or oblique, dense, short anteriorly, becoming gradually longer posteriorly and forming long, oblique tufts. Profemora expanded anteriorly and forming sharp ridge. Protibiae slightly curved in basal third, with outer edge straight in apical half, inner side becoming stouter toward apical third, narrowed from widest point toward apex; inner edge rounded, not notched and not angulate at widest point. Metafemora slightly thicken. Aedeagus (Figs 43, 44) 2.2-2.3 mm long. Median lobe wide, slightly narrowed apically, with tip obtuse, inflexed. Parameres slender, slightly diverging apically, somewhat narrowed at middle. Internal sac complex, with four basal, one median and two apical sclerites. Basal sclerites consisting of lamellar structure, arcuate sclerite situated more dorsally and pair of rods converging apically. Median sclerite not well delimited. Apical sclerites slender, diverging and abruptly curved apically.

Comments. This species may be easily recognized by the shape of the elytral fasciae. It is similar to *S. japonum* Reitter in most external characters, but the inner side of the male protibiae is angulate subapically and the sclerites of the internal sac are very distinct in the latter species.

Scaphidium schuelkei sp. n. Figs 45, 46

Holotype ♂: China, West Hubei. Shennongjia Nat. Res., 2000-2200m, 3-8.VI.1995, S. Kurbatov (MHNG).

Paratypes: same data as holotype, 1 ♂, 1 ♀ (MHNG); Shaanxi, Qin Ling Shan, 110° 06'E, 34°27'N, Hua Shan, 118km east Xian, north Valley, 1200-1400m, 18-20.VIII.1995, D. W. Wraze, 2 ♂ (PCMS, MHNG); Shaanxi, Qin Ling Shan, 107°56'E. 33°45'N, highway km 83 south Zhouzhi, 108 km southwest Xian, 1650m, 1-2.IX.1995, mountain forest, sifted. M. Schülke, 2 ♂, 1 ♀ (PCMS. MHNG), same data but A. Pütz 1 ♂, 1 ♀ (PCAP, MHNG).

Description. Length 6-7 mm. Similar to, and sharing most diagnostic characters with *S. becvari*. Body, antennal club, femora and tibiae black, antennal segments 1 to 6 and tarsi ochraceous or dark brown. Elytra with yellowish or ochraceous subhumeral and subapical fasciae. Subhumeral fascia fairly large, delimiting low humeral protuberance, tridentate posteriorly. Subapical fascia much narrower than subhumeral fascia, bidentate anteriorly, evenly rounded posteriorly. Frons at narrowest point between eyes 0.32-0.35 mm. Lateral impressions of sternite I with microsculpture consisting partly of striae.

Male sexual characters. Middle portion of metasternum impressed, pubescence recumbent in middle, becoming longer apically, covering posterior two thirds of median portion, forming two semi-erect lateral tufts. Protibiae strongly widen from basal third to apical fourth, angular at widest point, narrowed toward apex. Profemora expanded and narrowed ventrally to form a ridge. Aedeagus (Figs 45, 46) 1.85 mm long. Median lobe fairly wide, hardly narrowed apically, inflexed and tapering toward tip. Parameres slender, slightly arcuate. Internal sac complex, with seven basal and one apical sclerites. Basal sclerites consisting of one central plate joined to two lateral horizontal plates, two oblique lateral plates and two lateral arcuate rods. Apical sclerite transverse with basal angles obliquely extended and widen at tip.

Comments. This species is similar to *S. becvari* from which it may be distinguished by the elytra bearing larger subhumeral fascia and by the shape of the sclerites of the internal sac of the aedeagus.

Scaphidium stigmatinotum sp. n. Fig. 31

Holotype ♀: China, Yunnan, Yizu Mts., 2800m, 25°58'N, 100°21'E, 30.V.-3.VI.1993, Bolm (MHNG).

Description. Length 7 mm. Body, antennae and legs black. Elytra each with two well delimited ochraceous fasciae (Fig. 31). Basal fascia large, extended from lateral stria almost to sutural stria, touching basal stria, surrounding small, well delimited, black, round spot, tridentate apically. Apical fascia narrower, bidentate anteriorly, sinuate posteriorly; interval between fascia and sutural stria as large as interval between fascia and apical edge. Frontal punctation well delimited, mostly dense, fine near eye edges, more coarse in middle; vertexal punctation fairly coarse and dense. Frons at narrowest point between eyes 0.40 mm. Pronotum not raised above level of elytra, strongly inflexed anteriorly, with lateral edges slightly sinuate; antebasal puncture row obsolete, not impressed, indicated by several larger punctures anterior basal lobe; discal punctation conspicuously dense and coarse, consisting of punctures mostly much larger than puncture intervals. Elytra fairly convex, without humeral protuberance and without impressions; adsutural area completely flat; discal punctation conspicuous, dense and coarse, less coarse than that on pronotum, puncture diameters about as large as puncture intervals on most surface, mostly smaller than puncture intervals on fasciae; sutural and basal striae punctures about as large as discal punctures. Exposed abdominal tergites dull, with conspicuous mesh-like microsculpture, finely and densely punctate. Prohypomeron uneven, finely punctate. Mesepisterna conspicuously coarsely punctate. Meta sternum and sternite I finely punctate. Microsculpture consisting of punctures present on sternite I, microsculpture consisting of dense striae on sternites II to IV, and conspicuous mesh-like on sternite V. Legs long, protibiae straight, mesotibiae and metatibiae curved.

Comments. This new species resembles *S. shirakii* Miwa & Mitono and *S. klapperichi* Pic from which it may be easily distinguished by the coarsely punctate mesepisterna. In addition, *S. shirakii* possesses a pronotum with a distinct antebasal puncture row and elytra with basal stria punctures much larger than the discal punctures. *Scaphidium klapperichi* differs from both species, *S. stigmatinotum* and *S. shirakii*, by the elytra with subbasal fascia which contours completely two black spots.

Scaphidium sichuanum sp. n. Figs 32, 49, 50

Holotype ♀: China, South Sichuan, south Xichang, Mt. Luoji, 2300-2400m, 16-24.VII. 1996, S. A. Kurbatov (MHNG).

Paratype ♂ same data as holotype (in poor state, head and legs absent) (MHNG).

Description. Length 4 mm. Body strongly convex, black or blackish-brown. Pronotal base somewhat reddish. Elytra with ochraceous subbasal spot and subapical transverse fascia (Fig. 32). Subapical spot situated on inflexed lateral side, widen toward and touching lateral edge, longer than wide at lateral edge. Subapical fascia narrow, widen at and touching lateral edge. Tip of abdomen reddish. Antennae with segments 1 to 6 reddish, club black, apical half of segment 11 lighter. Femora very dark reddish to black, tibiae dark reddish-brown, tarsi brown, lighter than tibiae. Head with punctation very fine and sparse on frons, more distinct and dense on vertex. Frons at narrowest point 0.26 mm. Pronotum raised above level of elytra, strongly inflexed anteriorly; antebasal puncture row impressed, with several large puncture intervals in middle; discal punctation very fine and fairly dense, similar to that on frons. Elytra convex, moderately narrowed nateriorly, without humeral protuberance and without discal impressions; adsutural area flat; discal punctation sparse and very fine, as that on pronotum, puncture intervals mostly 5 to 10 times as large as puncture diameters; sutural stria punctures fairly coarse, basal stria punctures much coarser. Prohypomera almost evenly inflexed, with hardly distinct impression in inferior portion, without microsculpture, very finely punctate. Mesepisterna, metasternum and abdominal sternites evenly, very finely punctate. Exposed abdominal segments with microsculpture consisting of punctures; tergites more coarsely punctate than sternites, with mesh-like microsculpture along base, followed by microsculpture consisting of punctures. Legs fairly long, tibiae moderately curved.

Male sexual characters. Middle portion of metasternum uneven, impressed posteriorly. Metacoxal process prominent, truncate, with minute notch in middle. Punctured and pubescent area reaching almost mid-length of metasternum, pubescence recumbent, almost evenly short. Legs in male unknown. Aedeagus (Figs 49, 50) 1.14 mm long. Median lobe hardly inflexed, tapering apically, compression plate large. Parameres inflexed, strongly sinuate, narrowed in middle. Internal sec with inverted Y-shaped central sclerite, pair of diverging apical rods joined to curved sclerotized structure, and pair of complex, narrow basal sclerites. Membranes covered by rounded and acute scale-like structures, and with two groups of extremely fine spicule-like structures.

Comments. This species resembles *S. phungi* Pic by the shape of the body, but is notably more convex. It may be readily distinguished from its congeners by the elytral colour pattern, in combination with the strongly convex body, the pronotum relatively moderately narrowed anteriorly, the pronotum and elytra very finely punctate, and the parameres of the aedeagus strongly sinuate.

Pseudobironium Pic

This genus comprises 25 species currently recognized as valid, most Asian in distribution, except *P. globosum* Löbl from New Caledonia. Two species are known from China, *P. ussuricum* Löbl recorded from «Taipingshein Anhwei» (Löbl 1984b) and *P. sinicum* Pic described from Kuatun. Two additional species are recorded below.

KEY TO THE *PSEUDOBIRONIUM* OF CHINA

1 Body reddish-brown or ochraceous, pronotum with dark central spot, elytra darkened along base and apex, and with dark middle fascia or spot .... *P. bicolor* Löbl

- Body uniformly dark reddish-brown or black 2

2 Lateral portions of metasternum coarsely punctate. Antennae relatively stouth, segments 7-10 widest at apex .... *P. ussuricum* Löbl

- Lateral portions of metasternum extremely finely punctate. Antennae slender, segments 7 to 10 widest subapically 3

3 Mesocoxal line reaching middle of shortest interval of mesocoxa to metacoxa. Body length about 3 mm .... *P. sinicum* Pic

- Mesocoxal line reaching to third of shortest interval of mesocoxa to metacoxa. Length 3.3-3.5 mm .... *P.* cf. *castaneum* Pic

Pseudobironium sinicum Pic

Type material examined. Lectotype ♀, labelled: Kuatun, Fukien China 2.10.46 (Tchung Sen) / 9843 E 91/*Pseudobironium sinicum* det. Pic, n. sp. [red, handwritten]/Lectotype *Pseudobironium sinicum* Pic det. Löbl, 1998 (NHRM); paralectotype ♀ with the same locality label but from 2.10.46/*Pseudobironium sinicum* nsp. [handwritten by Pic] (MHNG) - by present designation.

Additional material. China, Fujien, Kuatun, 23.3.46 Tschung Sen, 1 ♀ (MHNG).

Distribution. China: Fujien.

Pseudobironium bicolor Löbl

Material examined. China, South Yunnan, Mengyang Nat. Res., cca 500m, 12.IX.1994, S. A. Kurbatov, 1 ♂ (MHNG).

Distribution. Nepal; North East India; Thailand; China: Yunnan.

Comments. This species may be readily distinguished by the colour pattern, as illustrated in Löbl 1992.

Pseudobironium cf. **castaneum** Pic

Material examined. Yunnan, Rutli, 4.II.1993, G. de Rougemont, 3 ♀ (MHNG).

Distribution. Nepal; Vietnam; ?China: Yunnan.

Comments. The specimens from China are females. They are identified tentatively as *P. castaneum* Pic because only male genitalia provide sure diagnostic characters.

Baeocera Erichson

Although this genus is with almost 220 described species one of the largest of the subfamily, in terms of species diversity, only six species, including two unidentified ones (LÖBL 1984b, ROUGEMONT 1996), were recorded from China. Within the collections examined 20 species were recognized, five of which are new.

While members of the taxa treated above were usually found on fungi growth, all *Baeocera* come from sifted forest floor litter.

KEY TO THE BAEOCERA OF CHINA

1 Lateral portions of metasternum impunctate or very finely and sparsely punctate 2

- Lateral portions of metasternum coarsely and usually densely punctate, or at least with a few coarse punctures 14

2 Elytra with basal stria interrupted at level of humeral protuberance, not joined to lateral stria. Exposed portion of scutellum large 3

- Elytra with basal stria joined to lateral stria. Scutellum usually concealed or with minute exposed tip, or exceptionally large (in *B. breveapicalis*) 6

3 Apical portion of median lobe of aedeagus large, not overlapped by basal bulb, about as long as latter. Male metatibia with subbasal denticle . . . . *B. satana* Nakane

- Apical portion of median lobe of aedeagus small, much shorter than basal bulb, partly or entirely overlapped by latter. Metatibia without subbasal denticle 4

4 Parameres of aedeagus simple, curved and hook-like at apex *B. gilloghyi* (Löbl)

- Parameres of aedeagus lobed, not hook-like at apex 5

5 Left paramere with small dorsal lobe and apex inflexed ventrally; right paramere lobed ventrally . . . . *B. yunnanesis* sp. n.

- Left paramere with large dorsal lobe and apex barely inflexed; right paramere not lobed . . . . *B. pubiventris* Löbl

6 Antennal segment 6 short and wide, about as long as half of segment 7 and 2 times as long as wide . . . . *B. breveapicalis* (Pic)

- Antennal segment 6 elongate and narrow, slightly shorter than segment 7 and 3-5 times as long as wide 7

7 Parameres of aedeagus expanded dorso-apically to form very large, strongly sclerotized lobe . . . . *B. kubani* sp. n.

- Parameres of aedeagus without lobe or with small, slightly sclerotized, subapical lobe 8

8 Apical portion of parameres strongly widen . . . . *B. huashana* sp. n.
- Apical portion of parameres not or hardly widen 9
9 Antennal segment 11 about twice as long as wide. Lateral contours of pronotum and elytra continuously arcuate in dorsal view. Elytral punctation mostly obsolete . . . . *B. xilingana* sp. n.
- Antennal segment 11 about 3 times as long as wide. Lateral contours of pronotum and elytra separately arcuate in dorsal view. Elytral punctation usually fine but distinct 10
10 Internal sac of aedeagus without strongly sclerotized guide-sclerite . . . . *B. xichangana* sp. n.
- Internal sac of aedeagus with strongly sclerotized guide-sclerite 11
11 Guide-sclerite of internal sac narrow, angulate basally . . . . *B. callida* Löbl
- Guide-sclerite of internal sac robust, not angulate basally 12
12 Guide-sclerite of internal sac gradually tapering apically . . . . *B. freyi* Löbl
- Guide-sclerite of internal sac not tapering apically 13
13 Guide-sclerite of internal sac straight, stouter apically . . . . *B. cooteri* sp. n.
- Guide-sclerite of internal sac abruptly curved in middle, widen subapically, pointed at tip . . . . *B. hammondi* Löbl
14 Metatarsi short, as long as or slightly longer than half of metatibiae. Elytra with sutural stria not extendend along basal edge. Body length 1.7-2.3 mm. . . . . *B. mussardi* Löbl
- Metatarsi long, as long as or longer than 4/5 of metatibiae. Elytra with sutural stria extended along basal edge. Body length 1.2 - 1.5 mm 15
15 Elytra each with basal stria not joined to lateral stria. Parameres of aedeagus notched . . . . *B. franzi* (Löbl)
- Elytra each with basal stria joined to lateral stria. Parameres of aedeagus not notched 16
16 Elytral punctation obsolete . . . . *B. sordidoides* Löbl
- Elytral punctation distinct 17
17 Punctation distinct only on basal half of elytral disc . . . . . . *B. pseudinculta* Löbl
- Punctation distinct on most of elytral disc 18
18 Metepisternum distinctly separated from metasternum by deep suture. Antennal segment 3 short, about as long as 2/3 of segment 4 . . . . *B. serendibensis* (Löbl)
- Metepisternum indistinctly separated from metasternum by outer puncture row. Antennal segments 3 and 4 almost equally long 19
19 Aedeagus with parameres straight, conspicuously narrow . . . . *B. vidua* Löbl
- Aedeagus with parameres slightly sinuate or arcuate, not particularly narrow 20
20 Aedeagus with parameres diverging apically; internal sac without row of denticles . . . . *B. longicornis* (Löbl)
- Aedeagus with parameres converging at apex; internal sac with one or two row of denticles situated posterior sclerite complex . . . . *B. pigra* (Löbl)

Baeocera serendibensis (Löbl)

Material examined. China, Hong Kong, V. 1996, G. de Rougemont, 2 (MHNG).

Distribution. India; Nepal; Sri Lanka; Thailand; China: Hong Kong.

Baeocera sordidoides Löbl

Material examined. China, Sichuan, Xiling Mts, 1600-2400m, litter, 30.VII.-4.VIII.1996, S. A. Kurbatov, 1 (MHNG).

Distribution. Nepal; China: Sichuan.

Comments. This specimen is tentatively assigned to *B. sordidoides*. It differs conspicuously from the type series by the metasternal punctation which is highly reduced, fine and sparse.

Baeocera mussardi roberti Löbl

Material examined. China, Hong Kong, III, V, and IX. 1996, G. de Rougemont, 19 (MHNG); Zhejiang, Lin'an County, ca 200m, W Tienmu Shan Nat. Res., 22.V.1996, J. Cooter, 1 (MHNG); Yunnan, Gaoligong Mts, 1500-2500m, 25°22'N 98°49'E, 1.-24.V.1995, O. Semela, 1 (NHMB); Yunnan, Shi Lin, 8.X.1985, G. de Rougemont, 1 (MHNG).

Distribution. Bhutan; India; Nepal; China: Hong Kong, Zhejiang, Yunnan.

Baeocera longicornis (Löbl)

Material examined. China, Hong Kong, III. 1996, G. de Rougemont, 2 (MHNG); South Yunnan, Mengyang Nat. Res., ca 500m, 11. and 14.IX.1994, S. A. Kurbatov, 2 (MHNG).

Distribution. India; Nepal; Sri Lanka; Thailand; China: Hong Kong, Yunnan.

Baeocera pigra (Löbl)

Material examined. China, South Yunnan, Mengyang Nat. Res., ca 500m, 9. and 11.IX. 1994, S. A. Kurbatov, 2 (MHNG).

Distribution. India; Nepal; Sri Lanka; Thailand; China: Yunnan.

Baeocera vidua Löbl

Material examined. China, East Hubei, near Macheng, ca 500m, 25.V.1995, S. Kurbatov, 1 (MHNG); northeast Guangxi, 10km S Longsheng, ca 1000m, 15.VI.1995, S. A. Kurbatov, 6 (MHNG); Sichuan, Mt. Emei, 1500m, 21.IX.1994, S. A. Kurbatov, 3 (MHNG); Yunnan, Gaoligong Mts, 1500-2500m, 25°22'N 98°49'E, 17.-24.V.1995, O. Semela, 2 (NHMB).

Distribution. Thailand; China: Hubai, Guangxi, Sichuan, Yunnan.

Baeocera pseudinculta Löbl

Material examined. China, South Yunnan, Mengyang Nat. Res., ca 500m, 10.IX.1994, S. A. Kurbatov, 1 (MHNG).

Distribution. Thailand; China: Yunnan.

Comments. The parameres of the aedeagi are narrower in the Chinese specimens than those in the specimens from Thailand.

Baeocera franzi (Löbl)

Material examined. China, South Yunnan, Mengyang Nat. Res., ca 500m, 9-14.IX.1994, S. A. Kurbatov, 55 (MHNG); Yunnan, Yipinglang, 1800-2000m, 17-20.VI.1994, V. Kubán, 1 (NHMB); Sichuan, Mt. Emei, 1700 and 1800m, 22. and 24.IX.1994, S. A. Kurbatov, 2 (MHNG); Sichuan, Qingshen Shan, 65km NW Chengdu, 8km W Taiping, 103°33'E 30°53'N, 18.V.-4.VI.1997, 800-1000m, A. Pütz, 3 (PCAP); Sichuan, east Xian, Mt. Huashan, 9-11.V.1994, S. A. Kurbatov, 2 (MHNG); South Sichuan, near Xichang, 1600m, 28.VII.1996, S. A. Kurbatov (MHNG); East Hubei, near Macheng, ca 500m, 25.V.1995, S. A. Kurbatov, 5 (MHNG); Hubei, Wuhan, park, 200m, 28.V.1995, S. A. Kurbatov, 4 (MHNG); Jiangsu, Nanjing, Zijinshan, 8.V.1996, J. Cooter, 3 (MHNG); Shaanxi, Qin Lin Shan, 110°06'E, 34°27'N, Hua Shan, north valley, 1200-1400m, 118km east Xian 18-20.VIII.1995, M. Schülke, 1 (PCMS).

Distribution. Thailand; China: Yunnan, Sichuan, Hubei, Jiangsu, Shaanxi.

Baeocera callida Löbl

Material examined. China, South Yunnan, Mengyang Nat. Res., ca 500m, 14.IX.1994, S. A. Kurbatov, 1 (MHNG); Yunnan, Xishan, 2300m, 24°57'N, 102°38'E, 27.VII.1983, Bolm, 3 and V. Kubán, 1 (NHMB).

Distribution. Pakistan; North India; Nepal; China: Yunnan.

Baeocera freyi Löbl

Material examined. China, Shaanxi, Qin Lin Shan, 108°49'E, 33°55'N, River Valley 40 km south Xian, autoroute km 50, River bank, 1200m, 31.VIII.1995, M. Schülke, 1 and A. Pütz, 6; Jiangsu, Nanjing Zijinshan, 8.V.1996, J. Cooter, 1 (MHNG, PCAP).

Distribution. Far East Russia; North Korea; China: Shaanxi.

Comments. This species may be easily distinguished from its congeners by the shape of the sclerites of the internal sac (Figs 58, 59).

Baeocera hammondi Löbl

Material examined. China, Shaanxi, East Xian, Mt. Huashan, 1700m, 9-11.V.1994, litter, S. A. Kurbatov, 1 (MHNG).

Distribution. China: Shaanxi.

Baeocera gilloghyi (Löbl)

Material examined. China, South Yunnan, Mengyang Nat. Res. ca 500m, 9 and 11.IX. 1994, S. A. Kurbatov, 5 (MHNG).

Distribution. Northeast India; Vietnam; China: Yunnan.

Comments. This species is unique in having the apical portion of the left paramrere strongly widen to form a large dorsal lobe.

Baeocera pubiventris Löbl

Material elxamined. China, South Yunnan, Mengyang Nat. Res. ca 500m, 9 and 11.IX.1994, S. A. Kurbatov, 4 (MHNG).

Distribution. North India; Nepal; Thailand; China: Yunnan.

Comments. This species may be easily distinguished from its congeners by the shape of the parameres, as figured in Löbl (1990b).

Baeocera breveapicalis Pic

Material examined. China, Northeast Guangxi, 10 km S Longsheng, ca 1000m, 15.VI. 1995, S. A. Kurbatov, 2 (MHNG); S. Yunnan, Mengyang Nat. Park, ca 500m, 12.IX.1994, S. A. Kurbatov, 3 (MHNG).

Distribution. Vietnam; China: Guangxi, Yunnan.

Comments. This species may be distinguished from the members of the *B. monstrosa* group by the aedeagal characters only (Fig. 63).

Baeocera satana Nakane

Material examined. China, Northeast Guangxi, 10km south Longsheng, ca 1000m, litter, 15.VI.1995, S. A. Kurbatov, 1 (MHNG).

Distribution. Japan; China: Guangxi.

Comments. This species is member of a small group of species (*B. dentipes* Löbl, *B. errabunda* Löbl, *B. monstrosetibialis* Löbl, *B. thoracica* Löbl and *B. tuberculata* Löbl) which have modified metatibiae in males. All but *B. satana* are known from India and Nepal. *Baeocera satana* may be easily distinguished from its Chinese congeners by the shape of the aedeagus (see Löbl 1994a) and male metatibiae.

Baeocera xichangana sp. n. Figs 51, 52

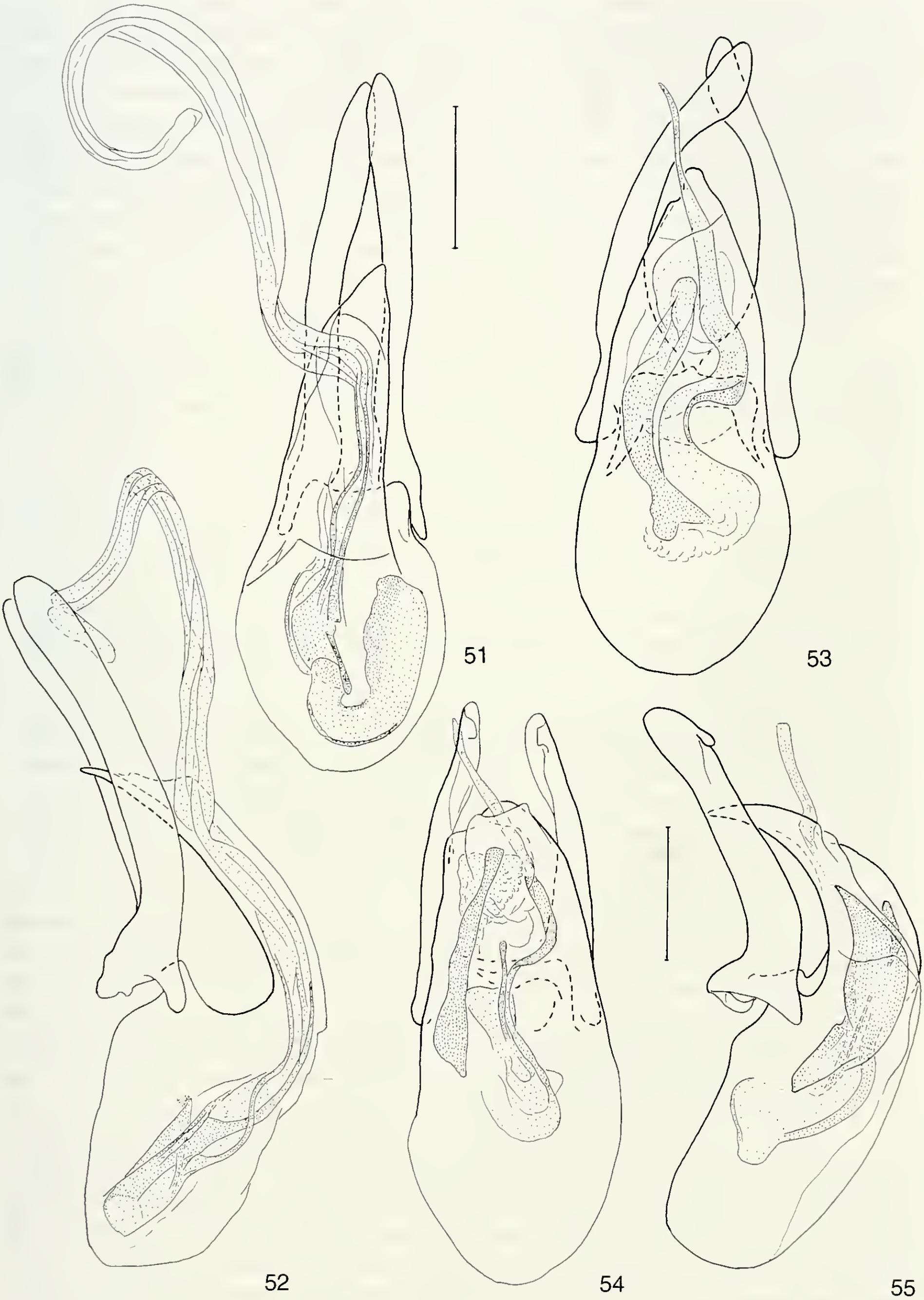
Holotype ♂: China, South Sichuan, near Xichang, 1600m, 28.VII.1996, S. A. Kurbatov (MHNG).

Paratypes: same data as holotype, 2 ♂, 2 ♀ (MHNG).

Description. Length 2.0 - 2.15 mm. Body reddish-brown to blackish. Apex of abdomen, antennae and tarsi lighter. Relative length of antennal segments 3 to 11 as: 15: 18: 20: 19: 20: 15: 19: 17: 23 (holotype); segments 3 to 6 evenly slender; segments 7 and 8 evenly wide, slightly wider than segment 6; segment 7 about 5 times as long as wide; segment 8 about 4 times as long as wide; club segments much wider than segment 8; segment 11 about 3 times as long as wide and twice as wide as segment 8. Lateral contours of pronotum an elytra separately arcuate in dorsal view. Lateral pronotal keel sinuate posteriorly (lateral view). Pronotum and elytra lacking microsculpture, very finely punctate. Punctation on basal portion of elytra as that on pronotal disc, punctation on posterior half of elytra slightly more distinct. Scutellum completely covered by pronotal lobe. Elytra with entire basal stria joined to lateral stria, and middle portion of lateral edge straight in dorsal view. Prohypomera and mesepisterna impunctate. Lateral portions of metasternum extremely finely punctate. Mesocoxal lines parallel to coxa, bordered by fairly small, not elongate pits. Metepisternum flat, wide, slightly narrowed anteriorly or parallel-sided, with deep, straight, impunctate suture. Exposed abdominal sternites very finely punctate, without microsculpture. Protibiae straight, mesotibiae and metatibiae barely curved.

Figs 51-55

Aedeagi in *Baeocera*; 51 and 52. *B. xichangana* sp. n.; 53. *B. huachana* sp. n.; 54 and 55. *B. cooteri* sp. n. Scale bars = 0.2 mm.



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Male sexual characters. Segments 1 and 2 of protarsi strongly widen, slightly narrower than protibia; segment 3 of protarsi distinctly widen. Aedeagus (Figs 51, 52) 0.97-0.98 mm long. Median lobe slightly asymmetrical, with basal buld moderately sclerotized, about as long as apical portion. Apical portion gradually narrowed in dorsal view, inflexed, arcuate, and almost evenly wide (tip excepted) in lateral view. Orifice of dorsal valve long, situated along right edge. Parameres conspicuously long, symmetrical, with inner and outer edge sinuate, almost evenly wide between expanded basis and apex. Internal sac with U-shaped basal sclerite, extended by long flagellum sclerotized along edges. Long apical portion of flagellum weakly sclerotized, extruded. Flagellar guide-sclerite absent.

Comments. Baeocera xichangana is unique by its aedeagal characters and cannot be placed in any known species group (Löbl 1992, Löbl & Stephan 1993). It may be easily distinguished from its congeners by the dorsal valve of the median lobe open along the right edge, the long parameres and the internal sac with very long flagellum sclerotized along both edges.

Baeocera huashana sp. n. Fig. 53

Holotype ♂: China, East Xian, Mt. Huashan, 1700m, 9-11.V.1994, S. A. Kurbatov (MHNG).

Description. Length 2.10 mm. Body black, apices of elytra and abdomen dark brown. Legs brown, tarsi lighter than tibiae and femora. Antennae light brown. Relative length of antennal segments 3 to 11 as: 16: 18: 20: 18: 20: 17: 19: 17: 23. Segments 3 to 6 almost evenly wide; segments 7 and 8 evenly wide, slightly wider than 6, segment 7 about 5 times as long as wide, segment 8 about 4 times as long as wide; clubs segments much wider than segments 7 or 8, segment 11 about 2.5 times as long as wide and 2 times as wide as segment 7. Lateral contours of pronotum and elytra separately arcuate in dorsal view. Pronotum and elytra without microsculpture. Pronotal punctation very fine. Scutellum completely covered by pronotal lobe. Elytra with basal stria entire, joined to lateral stria; lateral edge straight in middle portion (dorsal view). Elytral punctation fine, punctures notably larger than those on pronotal disc. Prohypomera, mesepisterna and lateral portions of metasternum extremely finely punctate. Mesocoxal lines convexly arcuate, bordered by coarse, slightly elongate pits. Metepisternum wide, flat, slightly widen posteriorly, with almost straight, impunctate suture. Sternite I with coarse, partly elongate basal pits, extremely finely punctate, not microsculptured. Following sternites with microsculpture consisting of punctures. Protibiae and mesotibiae straight, metatibiae slightly curved.

Male sexual characters. Segments 1 of protarsi and mesotarsi strongly widen, narrower than tibiae. Segment 2 of protarsi strongly widen, narrower than segment 1. Segment 3 of protarsi and segment 2 of mesotarsi slightly widen. Aedeagus (Figs 53) 0.95 mm long. Basal bulb fairly strongly sclerotized. Apical portion of median lobe slightly asymmetrical, shorter than basal bulb, gradually narrowed in dorsal view, with tip blunt, strongly inflexed ventrally. Ventral process large, prominent, with tubercle in middle. Parameres arcuate, with long basal process, gradually narrowed toward apical portion, apex widen. Internal sac with wide, bisinuate, strongly sclerotized flagellum, extended by narrow, weakly sclerotized, extruded portion. Flagellar guide-sclerite long, slender, widen at base and at apex.

Comments. This species is a member of the *B. curtula* group (Löbl 1992). It may be distinguished from most members of that group (*B. kapfereri* Reitter, *B. freyi* Löbl, *B. hammondi* Löbl, *B. hamifer* Löbl, *B. mustangensis* Löbl, and *B. cooteri* and *B. kubani* described below) by the shape of the parameres. It resembles *B. curtula* Achard by the shape of the apically widen parameres, althought they are narrower in the latter species. It differs conspicuously from *B. curtula* by the elytral punctation, which is in *B. curtula* as fine as the pronotal punctation, by the larger aedeagus with bisinuate flagellum of the internal sac, and by the tuberculate basal process of the median lobe.

Baeocera cooteri sp. n. Figs 54, 55

Holotype ♂: China, Zhejiang, Lin'an county, ca 500m, W Tianmu Shan N. R., 16.V.1996, J. Cooter (MHNG).

Paratypes: same data as holotype, 3 ♂, 2 ♀; same data but 300m, 22.V., 1 ♂; same data but 350, 16-22.V., 1 ♀; Zhejiang, Lin'an County, Lin Long Shan, 250m, 22.V.1996, J. Cooter, 5 ♂, 1 ♀; Hong Kong, III.1996, R. de Rougemont, 1 ♂ (all MHNG).

Description. Length 1.80-2.15 mm. Body dark brown to black, apical abdominal segments and appendages lighter. Most external characters as in *B. huashana* but pits bordering mesocoxal lines and base of sternite I distinctly elongate. Relative length of antennal segments 3 to 11 as: 15: 20: 20: 19: 20: 16: 19: 17: 25 (holotype). Elytra with distinct discal punctation.

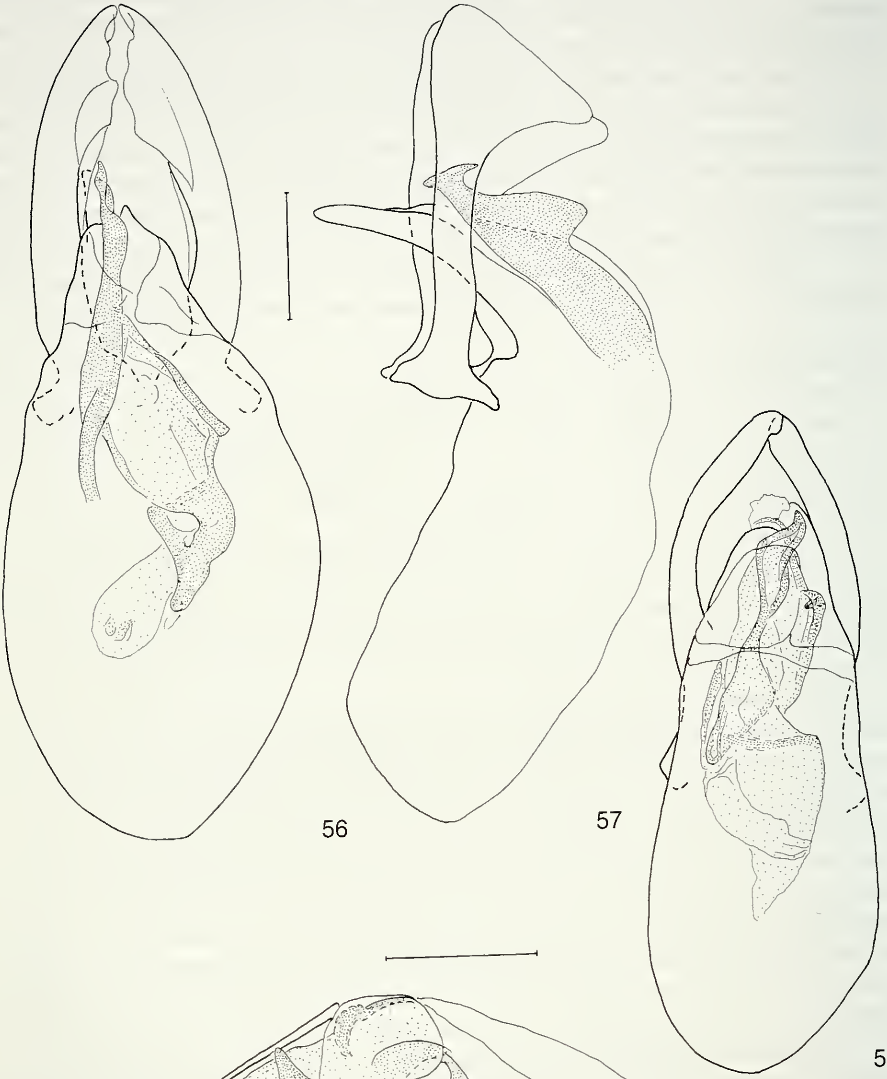
Male sexual characters. Segments 1 to 3 of protarsi strongly widen, segment 1 almost as wide as protibiae, following segments gradually narrowed. Mesotarsi with segment 1 strongly widen, segments 2 and 3 slightly widen. Aedeagus (Figs 54, 55) 0.80-0.90 mm long. Basal bulb fairly sclerotized. Apical portion of median lobe shorter than basal bulb, slightly asymmetrical and with apex blunt in dorsal view, inflexed, almost evenly concave and narrowed toward tip in lateral view. Ventral process moderately projecting. Parameres with long basal process, sinuate and almost evenly wide in dorsal view, moderately curved in lateral view, with small, dorso-apical lobe. Internal sac with flagellum joined to incurved rods; flagellar guide-sclerite almost straight, narrow, except strongly expanded apical portion in dorsal view, robust and hook-like in lateral view.

Comments. This species is characterised by the shape of the flagellar-guide sclerite and parameres. It may be readily distinguished from other members of the *B. curtula* group known from China (*B. callida*, *B. hammondi*, *B. freyi*, *B. huashana*, *B. kubani*) by the distinct elytral puncation.

Baeocera kubani sp. n. Figs 56, 57

Holotype ♂: China, Yunnan, Jizu Mts, 2800m, 26°58'N 100°21'E, 30.V.-3.VI.1993, S. Kubán (MHNG).

Description. Length 2.47 mm. Body black, apical abdominal segments and tibiae dark brown, tarsi and antennae ochraceous. Antennae apparently long (segments



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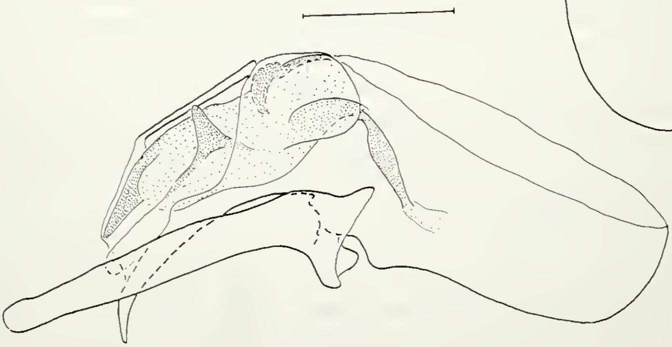

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8 to 11 of both antennae brocken off and lost). Relative length of segments 3 to 7 as: 21: 19: 20: 20: 20. Segments 3 to 6 almost equally wide, segment 7 wider than 6, about 5 times as long as wide. Lateral contours of pronotum and elytra separately arcuate in dorsal view. Pronotum and elytra without microsculpture. Pronotal punctation dense, extremely fine. Scutellum completely covered by pronotal lobe. Lateral edges of elytra slightly rounded in dorsal view, basal stria entire. Elytral punctation dense, consisting of punctures extremely shallow, mostly about as small as pronotal punctures, some punctures distinctly larger. Prohypomera, mesepisterna and lateral portion of metasternum extremely finely punctate. Mesocoxal lines parallel to coxa, bordered by coarse, not elongate marginal pits. Metepisterna large, almost flat, with suture deep, impunctate, almost straight. Exposed abdominal tergites very finely punctate. Sternites I to V without microsculpture, very finely punctate; basal pits of sternite I not elongate. Protibiae and mesotibae hardly curved, metatibiae straight.

Male sexual characters. Segments 1 to 3 of protarsi strongly widen, narrower than protibiae; segment 2 slightly narrower than segment 1, segment 3 distinctly narrower than segment 2. Segment 1 of mesotarsi strongly widen, segments 2 und 3 moderately widen. Median portion of exposed abdominal sternites bearing very sparse pubescence. Aedeagus (Figs 55, 56) 1.27 mm long. Median lobe with moderately sclerotized basal bulb. Apical portion of median lobe gradually narrowed in dorsal view, strongly inflexed, slightly asymmetrical, shorter than basal bulb. Ventral process small, not prominent. Parameres with short basal processes, almost evenly narrow between widen basis and mid-length, strongly expanded dorsally between mid-length and apex, forming conspicuous, large, relatively strongly sclerotized lobe. Internal sac with complex sclerotized basal structures. Flagellar guide-sclerite robust, partly extruded, flattened vertically, raised subapically, with apical hook.

Comments. This species may be easily distinguished from its congeners by the shape of the parameres expanded by a dorsal lobe conspicuously large, and by the shape of the flagellar guide-sclerite. See comments under *B. cooteri*.

Baeocera yunnanensis sp. n. Figs 60-62

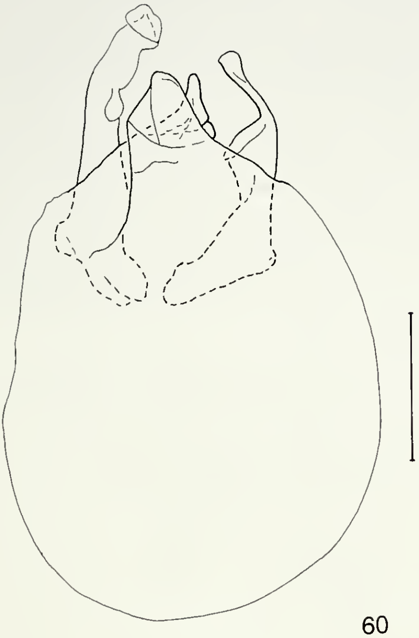
Holotype ♂: China, South Yunnan, Mengyang Nat. Res., ca 500m, 9.IX.1994 S. A. Kurbatov (MHNG).

Paratypes: same data as holotype, 2 ♂, and same data but from 11.IX., 1 ♂ (MHNG).

Description. Length 1.7 - 1.8 mm. Body, femora and tibiae uniformly ochraceous, or prothorax and abdomen lighter than elytra and metasternum. Antennae and tarsi lighter than prothorax and abdomen. Antennae long, relative length of segments 3 to 11 as: 12: 16: 18: 15: 20: 18: 22: 20: 30 (holotype). Segments 3 to 6 equally narrow, segment 5 about 4 times as long as wide; segments 7 and 8 equally wide, slightly wider than segment 6, segment 7 about 4 times as long as wide; segments 9 and 10 each

Figs 56-59

Aedeagi in *Baeocera*: 56 and 57. *B. kubani* sp. n.; 58 and 59. *B. freyi* Löbl. Scale bars = 0.2 mm.



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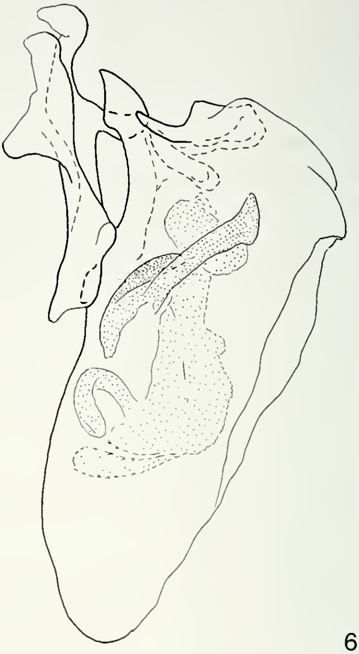

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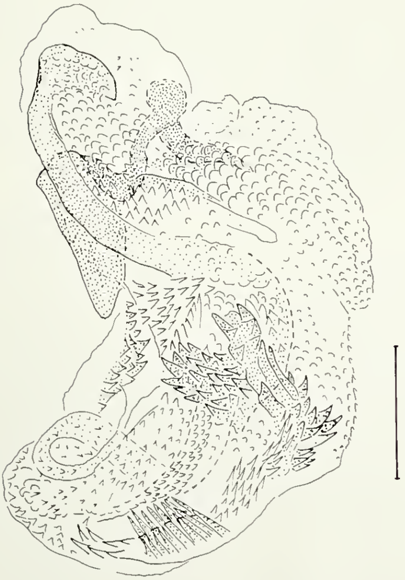

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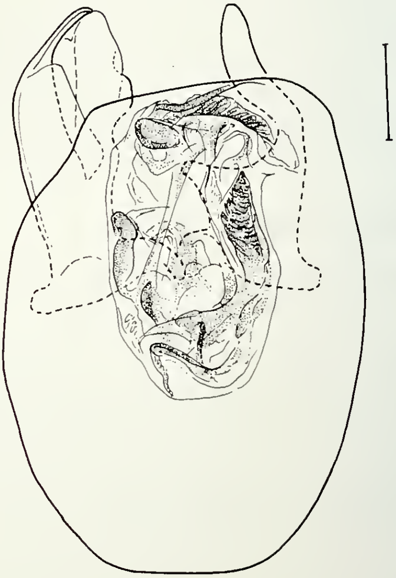

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slightly wider than 8; segment 11 as wide as or wider than 10, about 4 times as long as wide. Lateral contours of pronotum and elytra separately arcuate. Pronotum and elytra lacking microsculpture. Pronotum with extremely fine punctation. Exposed portion of scutellum large. Lateral edge of elytra almost straight in middle third. Elytra with basal stria interrupted at humeral area. Humeral area slightly raised. Elytral punctation fairly fine, consisting of well delimited punctures, intervals mostly 2 to 5 times as large as puncture diameters; basal portion of elytra extremely finely punctate. Prohypomera and mesepisterna impunctate. Lateral portions of metasternum extremely finely punctate. Mesocoxal lines parallel, with marginal pits extended laterally, not or slightly elongate. Metepisternum large, flat, narrowed anteriorly, with impressed, slightly rounded suture. Abdominal tergites with microsculpture consisting of punctures; punctation fairly fine, about as that of apical portion of elytra, but more dense. Abdominal sternites with extremely fine punctation, lacking microsculpture; basal pits of sternite I not or hardly elongate. Tibiae slightly curved.

Male sexual characters. Protarsi and mesotarsi with segments 1 strongly widen, about as wide as tibiae; segments 2 slightly widen, segments 3 hardly widen. Aedeagus (Figs 60-62) 0.83-0.87 mm long. Basal bulb large, weakly sclerotized. Apical portion of median lobe not inflexed, short, asymmetrical, with tip blunt in dorsal view, pointed in lateral view. Ventral process small, not prominent. Parameres strongly asymmetrical, relatively narrow. Left paramere moderately narrowed apically, with large mediodorsal lobe, and abruptly inflexed apex. Right paramere abruptly narrowed in posterior third, and with ventral lobe. Internal sac very complex.

Comments. This new species is a member of the *B. monstrosa* group. Is it very similar to *B. pubiventris* and *B. gylloghyi* with which it was found. It may be easily distinguished from these two species by the right paramere abruptly narrowed and lobed ventrally, and the left paramere lobed dorsally.

Bironium Csiki

The genus comprises 27 species, all known from subtropical or tropical ares of Asia and in New Guinea. Members of *Bironium* were not yet reported from China. One species is present within the collections examined.

Bironium bidens Löbl

Material examined. China, South Yunnan, Mengyang Nat. Res., ca 500m, 9-14.IX.1994, S. A. Kurbatov, 14 (MHNG).

Distribution. Thailand; China: Yunnan.

Mysthrix Champion

Tis genus comprises two likely termitophilous species, one of which occurs also in China. The second species, *M. kistneri* Löbl, is known from Sumatra.

FIGS 60-63

Aedeagi in *Baeocera*; 60 to 62. *B. yunnanensis* sp. n., internal sac (62) in detail; 63. *B. breveapicalis* (Pic). Scale bars = 0.2 mm in figs 60, 61; = 0.1 mm in figs 62, 63.

Mysthrix termitophilum Champion

Material examined. China, Hong Kong, III, V, and X-XII.1996, G. de Rougemont, 31 (MHNG).

Distribution. North India; Nepal; China: Hong Kong.

Comments. The specimens from China are slightly larger than the few ones which I have seen from the Himalayan region.

Scaphicoma Motschulsky

This genus comprises eleven species currently recognized as valid, distributed in South East Asia, New Ireland, and tropical Africa. Although some species of *Scaphicoma* may be readily recognized (e.g., *S. nigrovittata* (Achard), *S. flavovittata* Motschulsky) by the colour pattern and punctation, reliable diagnostic characters are unknown from most of them. For this reason I could not identify one of the two species found in China.

Scaphicoma arcuata (Champion, 1927)

Material examined. China, South Yunnan, Mengyang Nat. Res., ca 500m, 11.IX.1994, S. A. Kurbatov, 1 (MHNG).

Distribution. North India; Nepal; Thailand; China: Yunnan.

Comments. This species differs from the similar *S. apicalis* (Pic) by the abdominal sternite I with dense basolateral punctation.

Scaphicoma sp.

Material examined. China, Northeast Guangxi, 10km S Longsheng, ca 1000m, 15.VI. 1995, S. A. Kurbatov, 2 ♀ (MHNG).

Comments. These specimens represent possibly a separate species. They differ from *S. apicalis* and *S. arcuata*, and resemble *S. cincta* (Pic) by their colour pattern. The body is ochraceous but the bases of the pronotum and elytra, the elytral apices and lateral edges, large portions of the prohypomera, mesepisterna, metasternum, and the entire metepisterna are strongly darkened.

Scaphobaeocera Csiki

This genus is widely distributed and found in Asia, New Guinea, Australia, Micronesia, Mascarene archipelago and tropical Africa. It comprises 60 described species. Seven are known to occur in Japan (LÖBL 1981), one from Far Eastern Russia (LÖBL 1993), and one unidentified species was recorded from China (ROUGEMONT 1996). The new material raises the number of Chinese species to eleven, three of which are new.

KEY TO THE *SCAPHOBAEOCERA* OF CHINA

1 Antennal segment 11 shorter than, or as long as, segment 10 . . *S. spinigera* Löbl
- Antennal segment 11 longer than segment 10 2
2 Antennal segment 11 about as long as segments 9 and 10 combined. Body length 1.1-1.3 mm . . . . *S. dorsalis* Löbl
- Antennal segment 11 shorter than segments 9 and 10 combined 3
3 Prohypomera with longitudinal stria. Antennal segment 8 about 4 times as long as wide. Body length 1.6 mm . . . . *S. pseudovalida* sp. n.
- Prohypomera without stria. Antennal segment 8 about as long as wide, or upto 2 times as long as wide. Body length 1.1-1.5 mm 4
4 Aedeagus with parameres notched subapically . . . . *S. incisa* Löbl
- Aedeagus with parameres not notched 5
5 Aedeagus with median lobe forming ventral plate prominent posterior articular process . . . . *S. lamellifera* Löbl
- Aedeagus with median lobe lacking ventral plate 6
6 Aedeagus with flagellum simple, evenly, slightly arcuate, narrowed gradually apically . . . . *S. simplex* sp. n.
- Aedeagus with flagellum different 7
7 Aedeagus with flagellum spiral and simple 8
- Aedeagus with flagellum not spiral, or spiral and complex basally 9
8 Aedeagus with flagellum forming two or three complete circles *S. difficilis* Löbl
- Aedeagus with flagellum forming six or seven complete circles . . . *S. spira* Löbl
9 Aedeagus with basal bulb prominent apicoventrally . . . . *S. nobilis* Löbl
- Aedeagus with basal bulb not prominent apicoventrally 10
10 Apical third of parameres conspicuously widen in lateral view; flagellum spiral, with base large and complex . . . . *S. molesta* sp. n.
- Apical two thirds of parameres moderate widen in lateral view; flagellum irregularly incurved, not spiral, with base fairly small, hook-like . . . . *S. cognata* Löbl

Scaphobaeocera lamellifera Löbl

Material examined. China, Yunnan, Gaoligong Mts, 25°22'N 98°49'E, 1500-2500m, 17-24.V.1995, O. Semela, 1 (MHNG).

Distribution. Northeast India; China: Yunnan.

Comments. This species was known from two males taken in the Garo Hills, Meghalaya. The single specimen from Yunnan exhibits exactly the same conspicuous aedeagal characters as the types.

Scaphobaeocera incisa Löbl

Material examined. China, South Yunnan, Mengyang Nat. Res. ca 500m, 9-13.IX.1994, S. A. Kurbatov, 6 (MHNG).

Distribution. Thailand; China: Yunnan.

Comments. This is the only species of *Scaphobaeocera* which possesses parameres notched subapically.

Scaphobaeocera cognata Löbl

Material examined. China, Shaanxi, Qin Lin Shan, 107°56'E 33°45'E autoroute km 93 S of Zhouzhi, 108 km southwest Xian, 1650m, mountain forest, 1-2.IX.1995, A. Pütz, 1 (PCAP); Central Sichuan, Wolong Nat. Res., 1500m, 22. and 24.V.1994, S. A. Kurbatov, 11 (MHNG); same data but 1700m, 19.V., 1 (MHNG); Yunnan, Mengyang Nat. Res. ca 500m, 10.IX.1994, S. A. Kurbatov, 1 (MHNG); Yunnan, Jizu Shan, 25°58'N, 100°21'E, 2500-2700m, 6-10.VII.1994, V. Kubán, 1 (NHMB); same data but 2800m, 20.V.-3.VI.1993, Bolm, 1 (NHMB); Yunnan, Lijiang, 26°53'N, 100°18'E, 1800m, 23.VI.-21.VII.1992, S. Bečvář, 2 (MHNG); Yunnan, Heishui, 35km north Lijiang, 27°13'N 100°19'E, 18.VI.-4.VII.1993, S. Bečvář, 1 (MHNG).

Distribution. North India; Nepal; China: Shaanxi, Sichuan, Yunna.

Comments. Females from the Wolong Nat. Res. are tentatively associated with the males. All specimens recorded from other localities are males and were dissected.

Scaphobaeocera nobilis Löbl

Material examined. China, South Yunnan, Mengyang Nat. Res., ca 500m, 8-12.IX.1994, S. A. Kurbatov, 9 (MHNG).

Distribution. Bhutan; Thailand; China: Yunnan.

Scaphobaeocera spinigera Löbl

Material examined. China, Central Sichuan, Wolong Nat. Res., 1500m, 21.V.1994, S. A. Kurbatov, 1 (MHNG); Hong Kong, V. and IX-X.1996, G. de Rougemont, 3 (MHNG).

Distribution. Pakistan; India; Nepal; Thailand; China: Sichuan, Hong Kong.

Scaphobaeocera difficilis Löbl

Material examined. China, West Hubei, Shennongia Nat. Res., 2000-2200m, 3-8.VI. 1995, S. A. Kurbatov, 6 (MHNG).

Distribution. Pakistan; India; Nepal; Thailand; China: Hubei.

Scaphobaeocera spira Löbl

Material examined. China, Yunnan, Gaoligong Mts, 2200-2500m, 24°57'N 98°45'E, 8-16.V.1995, O. Semela, 11 (NHMB, MHNG).

Distribution. Nepal; Thailand; China: Yunnan.

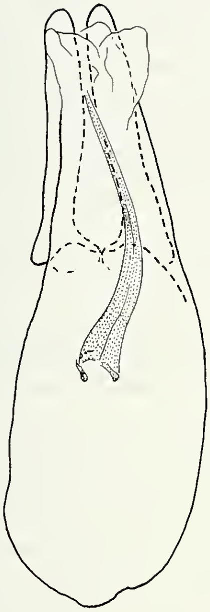
Scaphobaeocera dorsalis Löbl

Material examined. China, South Yunnan, Mengyang Nat. Res., ca 500m, 8-14.IX.1994, S. A. Kurbatov, 28 (MHNG); Central Sichuan, Wolong Nat. Res., 1700, 19.V.1994, S. A. Kurbatov, 2 (MHNG).

Distribution. India; Nepal; Thailand, Taiwan; China: Sichuan, Yunnan.

Figs 64-69

Aedeagi in *Scaphobaeocera*; 64 and 65. *S. simplex* sp. n.; 66 and 67. *S. molesta* sp. n.; 68 and 69. *B. pseudovalida* sp. n. Scale bar = 0.1 mm.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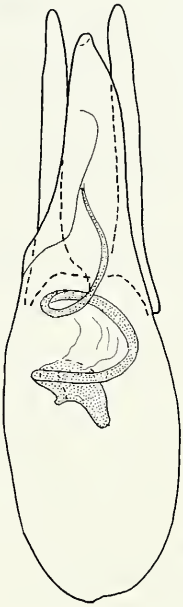
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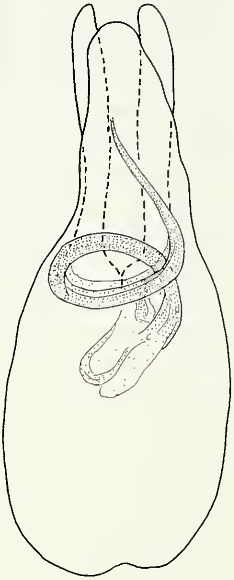
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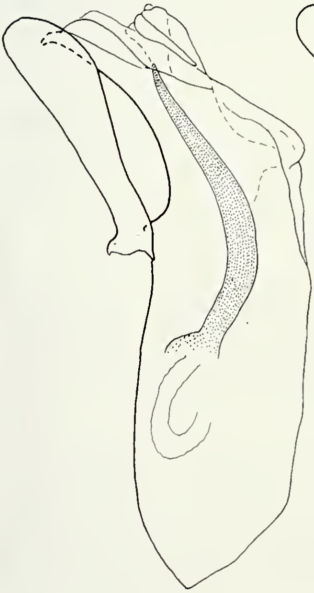
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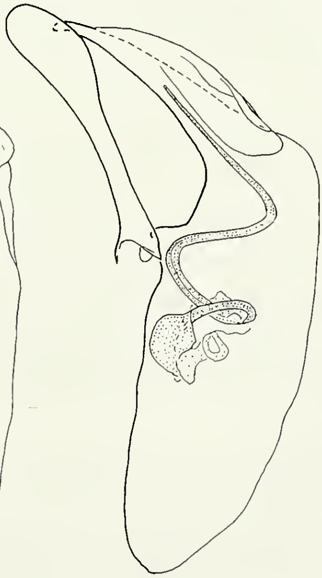
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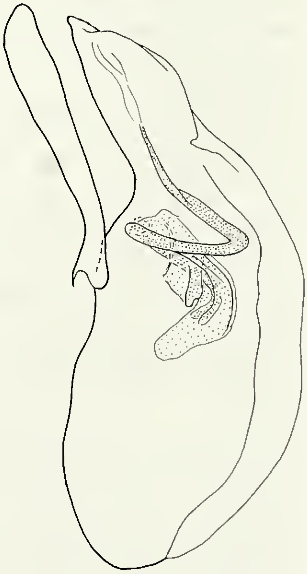
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Scaphobaeocera simplex sp. n. Figs 64, 65

Holotype ♂: China, Central Sichuan, Wolong Nat. Res., 1500m, 22.V.1994, litter, S. A. Kurbatov (MHNG).

Description. Length 1.4 mm, dorsoventral diameter 0.78 mm. Body very dark, almost black, with reddish lustre. Abdominal ventrites 2 to 5, coxae, femora and tibiae reddish-brown, abdominal apex and tarsi yellowish. Pronotum, elytra, lateral portions of metasternum and abdominal sternites distinctly microsculptured and iridescent. Punctation very fine on dorsal and ventral surfaces of body. Relative length of antennal segments 3 to 11 as: 8: 10: 12: 15: 9: 13: 14: 20. Segments 3 to 6 almost equally narrow, slightly widen apically, segment 3 about 2.5 times as long as wide; segments 7 and 8 each about 2 times as long as wide; segment 11 twice as long as wide. Prohypomera without longitudinal stria. Elytra with distinct parasutural striae. Median portion of metasternum shallowly impressed, with anteriomedian stria. Metepisterna flat, about 0.10 mm wide, slightly narrowed anteriorly. Mesocoxal areas 0.02 mm long, with minute marginal pits. Basal pits of sternite I minute. Tibiae straight.

Male sexual characters. Segments 1 to 3 of protarsi strongly widen, almost as wide as apex of protibia. Aedeagus (Figs 64, 65) 0.43 mm long. Median lobe with minute ventral process, apical portion inflexed, concave ventrally, tip truncate in dorsal view, acute in lateral view. Internal sac with simple, arcuate, gradually narrowed flagellum. Parameres straight, converging apically, widen in apical two thirds.

Comments. This species may be easily distinguished from its congeners by the shape of the simple flagellum. *Scaphobaeocera australiensis* Löbl possesses also a flagellum very simple, but it is bent irregularly, and much narrower than in the new species. In addition, the colour patter and the shape of the median lobe in *S. australiensis* are clearly different.

Scaphobaeocera molesta sp. n. Figs 66, 67

Holotype ♂: China, South Yunnan, Mengyang Nat. Res., ca 500m, 9.IX.1994, S. A. Kurbatov (MHNG).

Paratypes: same data as holotype, 1 ♂, 5 ♀; same data as holotype but 11.IX., 1 ♂; same data but 14.IX., 1 ♂ (all MHNG).

Description. Length 1.4-1.5 mm, dorsoventral diameter 0.80-0.86 mm. Body reddish-brown, elytra darkened toward apex. Apex of abdomen, legs and antennae lighter. Body microsculptured and iridescent. Punctation extremely fine and indistinct on pronotum, lateral portions of metasternum and abdomen, distinct on elytra. Relative length of antennal segments 3 to 11 as: 12: 20: 22: 19: 22: 17: 24: 25: 30 (holotype). Segments 3 to 5 almost equally narrow, not widen apically, segment 3 about 3 times as long as wide; segment 6 distinctly wider than segment 5, 4 times as long as wide; segment 7 about 3 times as long as wide; segment 8 about twice as long as wide; segment 11 3 times as long as wide (holotype). Apex of scutellum exposed. Elytra with distinct parasutural striae. Prohypomera without longitudinal stria. Middle portion of metasternum flat, lacking stria or impression, distinctly, very densely punctate and pubescent. Metasternal sides microsculptured. Mesocoxal areas 0.02-0.03 mm long, with marginal pits obsolete. Metepisternum 0.0.4-0.05 mm wide, flat, parallel-sided, with straight suture. Basal pits of sternite I obsolete. Tibiae straight.

Male sexual characters. Segments 1 to 3 of protarsi strongly widen, segment 1 wider than base of protibiae, segment 2 about as wide as base of protibiae, segment 3 distinctly narrower than segment 2. Aedeagus (Figs 66, 67) 0.43-0.45 mm long. Median lobe with apical portion strongly inflexed, ventral process distinct, tip acute. Internal sac with flagellum narrow, forming two circles, widen basally, lacking obvious additional sclerotized pieces. Parameres straight in dorsal view, slightly curved in lateral view, rather abruptly widen apically, extending behind level of tip of median lob.

Comments. This species is similar and likely closely related to *S. dispar* Löbl, with which it shares most characters. It may be distinguished by the aedeagus with parameres more abruptly widen apically and the spiral flagellum of the internal sac.

Scaphobaeocera pseudovalida sp. n. Figs 68, 69

Holotype ♂: China, South Yunnan, Mengyang Nat. Res., ca 500m, 11.IX.1994, litter, S. A. Kurbatov (MHNG).

Paratypes: 1 ♂ same data as holotype, 1 ♂ same data but 10.IX. (MHNG).

Description. Length 1.55-1.60 mm, dorsoventral diameter 0.85 mm. Body, femora and tibiae uniformly reddish-brown. Tarsi and antennae lighter than body. Body microsculptured and iridescent. Punctation extremely fine and indistinct on pronotum, lateral portions of metasternum and abdomen, distinct on elytra. Relative length of antennal segments 3 to 11 as: 9: 16: 20: 20: 21: 17: 21: 24: 30 (holotype). Segments 3 and 4 almost equally wide, not or hardly widen apically; segment 3 about 2.5 times as long as wide; segments 5 and 6 slightly wider than segment 4; segments 4 to 6 each 4 times as long as wide; segment 7 about 3 times as long as wide, segments 8 and 11 each about 4 times as long as wide, parallel-sided. Scutellum concealed. Elytra with distinct parasutural striae. Prohypomera with deep longitudinal stria. Middle portion of metasternal flat, lacking stria, distinctly punctured and pubescent. Metasternal sides microscultured. Mesocoxal areas 0.02-0.03 mm long, with marginal pits minute. Metepisternum 0.04-0.05 mm wide, flat, with slightly concave suture. Basal pits of sternite I obsolete. Protibiae and mesotibiae straight, metatibiae slightly curved.

Male sexual characters. Segments 1 and 3 of protarsi strongly widen, segments 1 and 2 each about as wide as base of protibiae, segment 3 slightly narrower. Aedeagus (Figs 68, 69) 0.39-0.42 mm long. Median lobe with apical portion hardly inflexed, lacking ventral process, tip blunt. Internal sac with flagellum narrow, forming one complete circle, widen basally, and with additional subbasal sclerites. Parameres almost straight, gradually widen apically, extending slightly posterior level of tip of median lobe.

Comments. This species is similar to *S. aberrans* Löbl, *S. pecki* Löbl, *S. robustula* Löbl and *S. valida* Löbl by the external and aedeagal characters. It may be distinguished from these four species by the long antennal segment 8. In addition, it differs from these species, except *S. valida*, by the parameres which become gradually wider in lateral view and by the flagellum of the internal sac curved in middle to form one complete circle. The new species may be distinguished from *S. valida*, in addition to the antennal characters, by the smaller size of the body and by the tip of the parameres not curved mesially.

Scaphoxium Löbl

This genus comprises 26 species distributed in Asia, Australia, Melanesia, and New Zealand. It was not yet recorded from China. Two species of *Scaphoxium* were found in the collections examined.

Scaphoxium intermedium Löbl

Material examined. China, South Yunnan, Mengyang Nat. Res., ca 500m, 11.IX.1994, S. A. Kurbatov, 2 (MHNG).

Distribution. North India; Thailand; China: Yunnan.

Comments. The single Chinese specimen is a male. It possesses exactly the same aedeagal characters as the numerous specimens from India and Thailand I have examined.

Scaphoxium ?taiwanum Löbl

Material examined. China, Central Sichuan, Wolong Nat. Res., 1000m, 24.V.1994, S. A. Kurbatov, 3; same data but ca 500m, 15-16.V., 1; Sichuan, Mt. Emei, 1700m, 22.IX.1994, S. A. Kurbatov, 1; same data but 1000m, 4-20.V.1989, S. Kuban, 2 (all MHNG).

Comments. Scaphoxium taiwanum is known from India, Nepal, Thailand, and Taiwan. The species is well defined by the internal sac of the aedeagus which bears two pairs of conspicuous rods. The basal rods are straight, the more distal rods are apically curved, hook-like. Only two males were found in the material from China. One, from the Wolong Nat. Res., has the internal sac extruded, the second, from Mt. Emei, has the internal sac apparently deformed. Both have the hook-like sclerites more robust than those in males examined from other localities, and the pair of parallel rods untraceable.

Toxidium LeConte

This genus is probably a paraphyletic assemblage (Löbl 1992). The ten Asian species of *Toxidium* which are placed in the *T. aberrans* group, together with *Scaphischema poupilieri* (Reiche) from the western Mediterranean area, are similar and likely related, in respect to the remaining species assigned to *Toxidium*. An additional species comes from China and is described below. The key to the Asian species of *Toxidium* in Löbl (1992) gives an incorrect statement in the couplet «8», concerning the basal striae of the elytra. The three involved species (*T. diffidens*, *T. pubistylis*, and *T. robustum*), possess elytra with basal striae not joined to the lateral striae. A new key is provided to replace the inconvenient couplet, and to accomodate the new species.

KEY TO THE ASIAN SPECIES OF *TOXIDIUM*

1 Elytra bright reddish, with blackish adsutural and apical areas *T. spectabile* Löbl
- Elytra unicolour or with light transverse fasciae 2
2 Metasternum short, mesocoxal areas about as long as shortest intervals between mesocoxal lines and metacoxa . . . . *T. vagans* Löbl
- Metasternum long, mesocoxal area much shorter than interval between mesocoxal lines and metacoxa 3

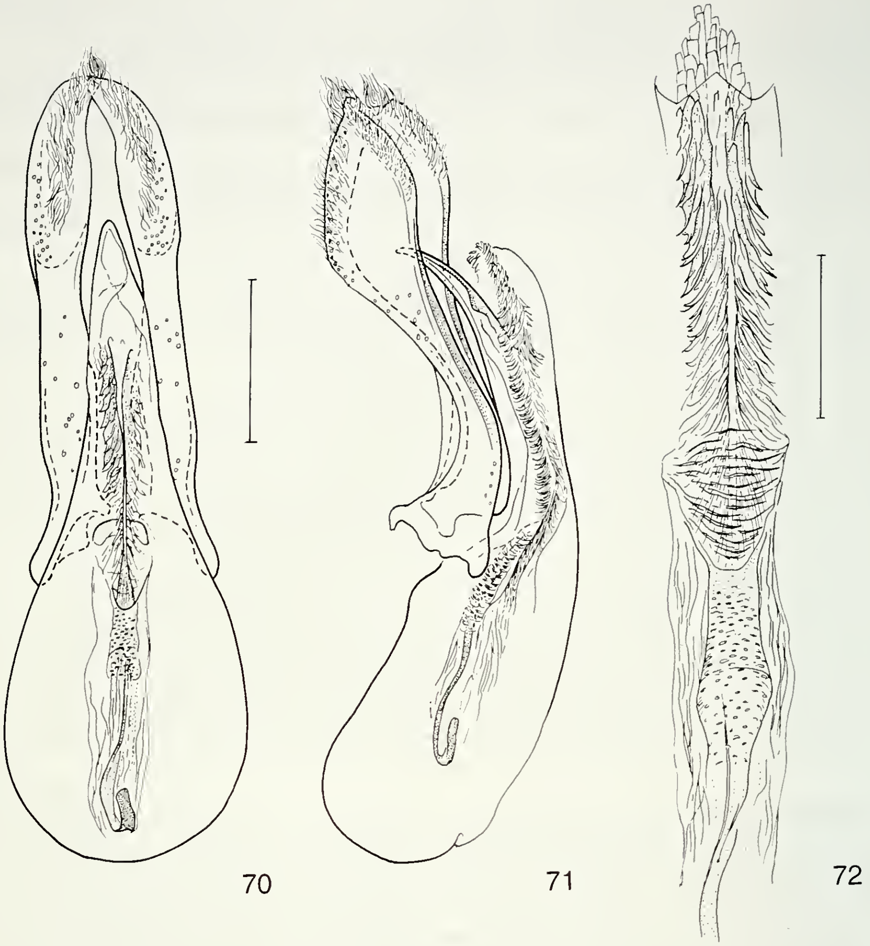
3 Elytra without basal striae 4
- Elytra with basal striae 5
4 Elytral punctation fine and irregular. Parameres of aedeagus smooth . . . . *T. incompletum* Löbl
- Elytral punctation coarse and fairly regular. Parameres of aedeagus pubescent . . . . *T. villosum* sp. n.
5 Mesepimeral ridge present. Lateral portions of metasternum fairly coarsely punctate . . . . *T. indicum* Achard
- Mesepimeral ridge absent. Lateral portions of metasternum very finely punctate 6
6 Pronotal punctation coarse, distinct at 12x magnification . . . *T. aberrans* Achard
- Pronotal punctation very fine, hardly visible at 24x magnification 7
7 Elytra with sutural striae long, starting neat elytral base 8
- Elytra with sutural striae very short, present only near elytral apices 9
8 Elytra entirely coarsely punctate. . . . . *T. curtilineatum* Champion
- Apical portion of elytra finely punctate . . . . *T. styligerum* Löbl
9 Internal sac of aedeagus with long, apically bifid rod and short, V-shaped subapical sclerite . . . . *T. pubistylis* Löbl
- Internal sac of aedeagus with sclerotized rod not bifid, and without additional sclerite 10
10 Internal sac of aedeagus with moderately long, sclerotized rod widen apically, extended about to level of basis of parameres . . . . *T. diffidens* Löbl
- Internal sac of aedeagus with very long, sclerotized rod narrowed apically, extended almost to mid-length of parameres . . . . *T. robustum* Pic

Toxidium villosum sp. n. Figs 70-72

Holotype ♂: China, Central Sichuan, Wolong Nat. Res., 1500m, 21.V.1994, S. A. Kurbatov (MHNG).

Paratypes: same data as holotype, 1 ♂, 1 ♀; same data but 22.V., 1 ♂ (all MHNG).

Description. Length 2.40-2.70 mm. Body black, apices of elytra lighter, apical abdominal segments light brown. Femora and tibiae dark reddish-brown, antennae and tarsi light brown. Relative length of antennal segments 3 to 11 as: 20: 25: 25: 22: 25: 20: 25: 25: 26; segments 3 to 6 equally narrow. Pronotal punctation dense and fairly coarse, distinct at 24 times magnification. Tip of scutellum exposed. Elytra with sutural stria strongly reduced, very shallow and short, present only on inflexed area near apex; basal stria absent; lateral and epipleural striae gradually converging toward apex; elytral punctation dense and coarse, intervals usually slightly larger than, but upto 2.5 times as large as, puncture diameters. Metathoracic wings fully developed. Mesosternal shield punctate, with narrow median ridge. Mesepimeral ridge absent. Middle portion of metasternum with very shallow impression; metasternal punctation sparse, fine, irregular. Mesocoxal line convex, mesocoxal area 0.06-0.08 mm long, about as long as 1/4 to 1/3 of shortest interval between mesocoxal line and metacoxa; marginal pits fairly fine. Metepisternum flat, evenly wide, with deep, fairly wide, straight suture. Pygidium



FIGS 70-72
Aedeagus in *Toxidium villosum* sp. n. Scale bars = 0.2 mm in figs 70, 71; = 0.1 mm in fig. 72.

and abdominal sternites very finely punctate, with extremely fine microsculpture consisting of punctures. Protibiae straight, mesotibiae and metatibiae slightly curved.

Male sexual characters. Segments 1-3 of protarsi strongly widen. Aedeagus (Figs 60-72) 0.95 mm long. Apical portion of median lobe gradually narrowed, obliquelly inflexed, convexly rounded near tip (lateral view). Parameres sinuate and moderately widen apically in dorsal view, inflexed and strongly widen apically in lateral view, with inconspicuous apicodorsal lobe, finely pubescent. Internal sac denticulate in apical half, with long, narrow, ventrobasal rod and central, straight rod.

Comments. This species appears to be closely related with *T. pubistylis* Löbl with which it shares the parameres strongly widen and pubescent apically. It may be easily distinguished from *T. pubistylis* and other congeners, *T. incompletum* Löbl excepted, by the absence of the elytral basal striae. The new species differs from *T. incompletum* by the much more coarse pronotal and elytral punctation and by the distinct metasternal and mesosternal punctation. These two species may be also easily distinguished by their aedeagal characters, especially by the absence of denticles in the internal sac of *T. incompletum.*

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